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Consumer



• REFRIGERATOR-FREEZERS

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Peanut butter

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Inexpensive opera glasses

REDUCING?

Will a machine do the trick?

Miniature water heaters

Food freezer plans Before you sign, investigate

Phonograph records





Real old-fashioned peanut butter— it's better for you

SALES of peanut butter, which has always been a flavorsome staple food, skyrocketed during World War II when butter and cheese required precious ration coupons. The result was that more peanut butter went into the lunchbox sandwiches and more consumers acquired the habit of using it.

Peanut butter contains an appreciable amount of good-quality protein that supplements the protein of wheat in bread. It consists of 50 percent or more fat, is a good source of vitamin B and phosphorus, and a fair source of calcium. Some 13 states in the South and Southwest comprise the peanut belt. The peanut is not a nut but a legume, like peas and beans, that grows under the surface of the soil. Any variety of peanut may be used for butter, although usually commercially-made peanut butter is a mixture of Virginia and Spanish peanuts. The Virginia peanuts when used alone make a peanut butter that may be lacking in smoothness. The consistency is improved by the addition of the Spanish variety, which furnishes more oil.

Although peanut butter can be made from raw peanuts, the nuts are usually roasted before being crushed. The color of the peanut butter is determined by the roasting process. Experts find that peanuts given a mild but complete roast are more palatable than those that are either underroasted or over-roasted. It is considered essential in making commercial peanut butter to remove the red skins and the heart or germ, for the skins

show in the butter as dark specks and the germ gives butter a bitter taste and causes it to turn rancid.

Old-fashioned peanut butter consisting of nothing but ground peanuts and a little salt has one serious disadvantage from the marketing point of view, namely that the oil has a tendency to separate from the finely-ground peanut mass and rise to the top of the jar. It will also become rancid in time. Experts in increasing "shelf life" of food products have offered various solutions. As the consumer can discover by reading labels, most commercial brands of peanut butter contain some hydrogenated oil, either a vegetable oil or a treated peanut oil, to stabilize or solidify it. Sometimes peanut oil that has been only partially hydrogenated is used. Peanut butter is also "homogenized," by adding oil to the ground nuts and then processing the mixture into uniform fine particles to retard separation. Honey or some other sweetening is sometimes added to produce additional flavor. Yeast may be added, as well as vitamins, to replace some of the food values lost in the roasting process.

Other suggestions that have been offered for preventing oil separation in peanut butter are to keep it cooled to 50 degrees or lower. According to a Georgia Experiment Station Bulletin, at this temperature the oil does not separate and the development of rancidity is retarded. As an al-

(Continued on page 30)

The Consumers' Observation Post

TO WAX OR NOT TO WAX A BRAND NEW AUTOMOBILE is a problem facing today's car owners. It seems that for some of the new cars, claims are made that their special finishes need no waxing or at least infrequent waxing. On the other hand, the manufacturers of such products as Simoniz and Johnson's Deep Gloss Carnu claim that all car finishes look better, last longer, and shine brighter after an application of their particular products. One technical paint specialist for an automobile manufacturer admitted that, although the waxing-polishing process was not necessary, it was desirable in order to make it easier to clean traffic film, "industrial fallout," tree sap, and other soil from the painted surface. Apparently it isn't so necessary as formerly to polish and wax a new car frequently, but if you're a fussy person you will very likely give it the usual care, even if it has the very newest lacquer or enamel.

IF THERE WERE ANY LOTION, SALVE, DRUG, OR FOOD SUBSTANCE that was effective in restoring hair to a balding head or prevent it from falling, the wigmakers would go out of business. Hope springs eternal, however, and there is always a customer for the product that professes to prevent baldness or grow hair. The product Dyn-A-Pak Food Supplement containing a wide range of vitamins, minerals, and a variety of "trace elements" in varying amounts was recently found by the Federal Trade Commission to have been misrepresented in advertising claims that its use would prevent baldness, check thinning or falling hair, cause it to grow faster and stronger and become thicker and glossier. There is nothing known to science at the present time that can fulfill such promises.

OVERWEIGHT AMERICANS who try to cut down their poundage by using advertised nostrums are chiefly reducing their pocketbooks. That was the warning of the National Better Business Bureau last spring which pointed out that even one of the leading weight reducing remedies in a leaflet accompanying its product recommended: "to weigh less—eat less." No need for expensive pills and exercises or freak diets; let the would-be reducer just eat a little less at each meal of the food served the rest of the family.

THE MODERN double-curved windshield is a cause of acute eye discomfort, according to an English motorist. He found the chief discomfort was due to top glare, reflection of instruments and steering wheel, and the lens effect of the windshield itself. The flat windshield of earlier cars was considered much more satisfactory for long periods of driving. Many American motorists will be in complete agreement with this opinion.

APPLIANCE SERVICE CLUBS ARE SPRINGING UP all over the country. One of the most recent to make its appearance is the Home Service Club of Dallas, Inc., a Texas organization which lists 635 services available, ranging from hi-fi installation to putting up window screens, according to The Wall Street Journal. This organization charges an annual membership fee of \$10 and, of course, the user of its services pays for the services also. The club, which receives 10 percent commission on each job completed, has averaged 16 jobs a day with an average charge of \$67. In addition to the customary repairs of appliances, it provides bonded baby sitters and maids. According to The Wall Street Journal, there is a home service firm or one being formed in nearly every major city in the country. Los Angeles has the United Home Services, Inc.; Long Island, the Allied Home Owners Association; and Chicago, Mr. Service Club, Inc. We shall be glad to have reports from our subscribers on their experiences with such organizations.

THOSE THIN PLASTIC BAGS that are so convenient for packaging many items, particularly garments that have been dry cleaned, are a real hazard to small children. Many deaths have been reported of infants who have pulled them over their heads and suffocated because the film or plastic clung so tightly that a baby could not pull it away. Deaths have also occurred from the same cause when plastic film was used as a mattress cover in baby's crib, playpen, or carriage. Plastic bags and wrappings should be placed beyond children's reach as carefully as household poisons, matches, and sharp knives. An excellent campaign to educate parents on the correct use of plastic film has been initiated by the Society of Plastics Industry, Inc., 250 Park Ave., New York 17. Those interested in home safety can obtain useful folders on the subject from the organization.

CHEWING GUM IS UNLIKELY TO HAVE WEIGHT REDUCING PROPERTIES. The Food and Drug Administration seized 134 cases of Slim-Mint chewing gum for making claims such as "eat when you want, lose up to 3-5-9 pounds a week; reduce without dieting; lose 5-10-20 pounds fast or money back." The Food and Drug Administration's analysis indicated that the essential ingredients of the gum were dextrose, oil of peppermint, benzocaine, wintergreen, cloves, cinnamon, and methylcellulose, which would not produce the claimed effect.

HOW LONG DO YOU think your appliances should last? According to a survey by the Chicago Tribune, homemakers indicated that they expect their freezer to last something like 16 years, range 15.8, refrigerator 14.7, vacuum cleaner 13.4, drier 12.5, dishwasher 12.3, washer 12.1, TV 8.6, and air conditioner 7.8 years. These figures are somewhat higher than the one given by one industrial designer, who commented that a household appliance had an expected average life of 10 years but, from the standpoint of efficiency and safety, he considered 7 years a better figure.

THOSE DELECTABLE-LOOKING BLUEBERRY PANCAKES that you see in some advertisements are not likely to turn out so well in the eating, in view of the nature of the ingredients. The Food and Drug Administration last spring seized two brands of "blueberry" pancake mixes on the grounds that "purple pellets" had been substituted for blueberries. In the case of Pillsbury Pancake Mix, the Food and Drug Administration charged that the purple pellets consisted chiefly of sugars, non-fat dry milk, starch, coconut pulp, artificial coal-tar color, artificial flavor, and a very small amount of blueberry pulp. In the case of Duff's Blueberry Pancake Mix, the pellets were sugar, gum acacia, citric acid, starch, artificial color and flavor, and blueberry pulp. The woman whose family has been disappointed at the results of her Sunday morning blueberry pancake breakfast will do better to buy frozen blueberries and add them to regular pancake mix, or better still, when blueberries are in season, to use the real thing.

GOODS DELIVERED TO A CUSTOMER that are defective should be returned promptly by the buyer to the seller. Under the Uniform Sales Act that has been generally adopted as law in this country, according to the legal editor of Photographic Trade News, goods delivered to a customer that are defective are not the goods the customer ordered and not those he bought and, furthermore, the shipping expense must be refunded as part of the price paid by the customer if he returns it to the seller for refund or exchange. The editor points out that this law particularly applies to cameras and other photographic equipment.

KNITWEAR COMBINED WITH LEATHER or vinyl imitation leather is expected to be quite popular this fall. The American Institute of Laundering has reported that some vinyl cannot be dry cleaned because of the effect of solvents on the material or on the dyestuff. It appears, however, that some vinyl can be laundered safely if water at a low temperature is used. There may be some difficulty, however, if one presses the vinyl imitation leather with a hot iron.

(The continuation of this section is on page 37)

Consumer Bulletin

THE ORIGINAL CONSUMER INFORMATION MAGAZINE

Consumers' Research is a non-profit institution. It is organized and operates as a scientific, technical, and educational service for consumers. The organization has no support from business or industry. Its funds come solely from the ultimate idensumers who read Consumer Bulletins.

Scientific and technical staff, editors, and associates: F. J. Schlink, R. Joyce, D. C. Aten, M. C. Phillips, Erma A. Hinek, F. X. Hinek, Donald M. Berk, and A. R. Greeniesf. Editorial Assistants: Mary F. Roberts, B. Beam, and Ellen J. Snyder. Business Manager: C. D. Comish.

Consumer Bulletin is issued monthly by Consumers' Research, Inc., at Washington, N. J. Copyright, 1959, by Consumers' Research, Inc., Washington, N. J.; all rights reserved. Subscription price (12 issues), \$5 per year, U.S.A. (Canada and foreign, \$5.20). For libraries, schools, and colleges, a special subscription of nine monthly Bulletins (October-June, inclusive) is available at \$3; Canada and foreign, \$3.20.

For a change of address, give your old address as well as your new one, including postal zone number. Allow five weeks for the change to become effective.

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Listings usually are arranged in alphabetical order by brand name (not in order of marit) under each quality or performance rating. A numeral 1, 2, or 3 at the end of a listing indicates relative price, 1 being low, 3 high. Where the 1, 2, 3 price ratings are given, brands in the 1, or least expensive group, are listed alphabetically, followed by brands in price group 2, also in alphabetical order, etc. A quality judgment is wholly independent of price.

This publication is authorized to be mailed at the special rates of postage prescribed by Sec. 132.122, Postal Manual.

Entered as second-class matter, November 9, 1934, at the Post office at Washington, N. J., under the Act of March 3, 1879; additional entry at Easton, Pa. Printed in U.S.A.

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Current fashion in women's shoes calls for heels with a very small contact surface. These heels give a static load of about 2000 pounds per square inch, depending on the person's weight and the size of the heels. Many smooth-surface floor coverings will not withstand loads of this kind without showing permanent marks of indentation that will show plainly, when light strikes at the right angle.

Vinyl floor coverings

In almost every home there is at least one area where a "smooth surface" flooring material will be used because it can be kept clean most easily. The kitchen and the bathroom, for example, are two places where water splashed on the floor would in itself make this kind of floor covering desirable.

At one time, either linoleum or the cheaper printed-enamel felt-base flooring was used for floors of this kind. Nowadays, there are a number of resilient smooth-surface flooring materials to choose from, including three different kinds of vinyl: the costly homogenous vinyl (solid vinyl tiles); felt-backed "inlaid" vinyl; and the new inexpensive, thin, rotogravure-printed vinyl floor coverings, called roto vinyl.

Felt-base printed-enamel floor covering has long accounted for more yardage than any other smooth-surface flooring and still does, according to trade sources. Now it is finding its position in the market challenged by the newer "roto vinyl" floorings. All the major manufacturers of smooth-surface flooring sold in roll form now produce roto vinyl and some of them produce it in two different weights.

The lightweight roto vinyls are intended to be priced at retail at just under \$1 a square yard. This makes them competitive with heavyweight felt-base printed-enamel floor covering (of which Congoleum is the best-known brand) which retails at about \$1 a square yard also. "Standard

weight" roto vinyls priced at about \$1.40 a square yard are competitive in price with the thin "light-gauge" linoleums. Light-gauge linoleums wholesale at 15 to 20 cents more per square yard than roto vinyls, but it is reported that many retailers fail to push them, partly because they consider them less attractive in appearance than the roto vinyl floorings.

Like felt-base printed-enamel floor covering, roto vinyls have a shiny finish, which some people don't like. Scratching is a problem on a shiny finish, for one reason. The manufacturers, however, have put a lot of thought into the styling of the new product, and the luxury appearance of some of the new roto patterns has been a big selling point. Some patterns, indeed, are not-too-farremoved copies of attractive and well-liked patterns of more costly smooth-surfaced floor coverings. Felt-base patterns, on the other hand, have not changed appreciably for a long time, and linoleum is still offered in the marbleized and linear effects and in the same colors that have been popular for years, with only a minimum of style change (there are some new "spatter" patterns, for example).

The wise consumer will not make a selection on the basis of price and pattern alone, however. The selection of a suitable material will depend first of all on the location where it is to be used. Felt-base and roto-vinyl floorings are not usually permanently installed, that is, laid with adhesive. One of the chief advantages of the new rotovinyl floor coverings is that they maintain their good appearance, very well, up to the point where the patterned surface wears through.

In the laboratory tests reported, they actually showed more surface wear resistance than either the inlaid vinyls or the linoleum sample tested. The linoleum wore down faster than either of the two vinyl materials. Because of the great depth of the pattern on linoleum and on inlaid vinyls, however, both should actually have a much longer service life than the tougher-surfaced roto vinyls.

They are "temporary floorings," that are usually put down on the floor like a rug. Either of them or linoleum and felt-backed vinyl can be used successfully on any suspended floor-that is a floor that has an air space beneath it, like the floor over a basement or one on the second story of a house or a floor adequately protected against moisture, over a crawl space. Care must be used in other locations. In fact, experts recommend that none of the smooth-surfaced floor coverings named should be used on concrete surfaces below grade, where floorings will be subject to alkali attack, or on floors that may be damp because of a poorly ventilated crawl space or one not protected by layers of building paper or other suitable means against rising soil moisture. Only asphalt tile and vinyl-asbestos tile are considered suitable for locations that may be damp, but rubber tile and homogenous vinyl tile may be used in instances where manufacturers have developed special adhesives for damp conditions.

Excellent advice on which floor material to use in particular locations can be obtained from the manufacturers' literature. A detailed discussion also appears in Flooring Materials, Circular F4.6 of the Small Homes Council of the University of Illinois, Urbana (15 cents). The circular not only deals with special conditions where moisture is present but also deals with the materials that in general are good conductors of heat for heating installations in which the heat enters the room through the floor. The circular does not discuss printed-enamel or roto-vinyl floor coverings.

Important considerations in selection are resistance to wear, resistance to staining, resistance to indentation, and comfort underfoot. If the homemaker is replacing an existing floor covering,

she sometimes has a background of experience to guide her in judging the relative importance of these several factors.

Consumers' Research purchased ten different brands of floor covering and made tests to determine various properties which were judged to be of greatest importance in the selection of any smooth-surface floor covering. Five samples of the new roto vinyls were included in the study, along with samples of felt-backed inlaid vinyl floorings, and a sample of linoleum. Tests made included determinations of indentation characteristics, resistance to abrasion, resistance to staining, and a practical test in which samples were laid on a wood floor in a foot-traffic area, so that effects of use and traffic for a short period could be observed on each sample.

Both the linoleum and the inlaid vinyls can be expected to outlast the roto vinyls. Although linoleum and inlaid vinyl each lost a relatively large amount of material by abrasion and their appearance was impaired, the linoleum and all of the inlaid vinyls tested had a great deal of patterned material remaining after wearing wheels had passed over each 57,000 times on the abrasion machine designed by Consumers' Research (illustration, page 9).



Indentation is a serious problem with smooth-surface floor coverings. On the other hand, a flooring that does not indent at all is hard on the feet, and has very poor "comfort value." If the dents made by a chair like this or the legs of a heavy appliance remain in the floor to an undesirable extent, the floor covering may soon need to be replaced because of its unsightly appearance.

In the study made by Consumers' Research, tests were made to determine the various properties which were judged to be of greatest importance in the selection of any smooth-surface floor coverings.

The pattern of all the roto vinyls tested had begun to wear off, in that time. They performed as follows: both samples of Sandran and one sample of Bird Super Vinyl began to show evidences of wear at 57,000 turns of the wheels; the Harmony House Best Vinyl at 50,000; the Nairn Forecast and one sample of Bird Super Vinyl at 46,000; the two samples of Armstrong Accolon showed wear at 40,000 and 24,000 turns.

How comfortable a flooring will be underfoot is determined by a factor called resilience. Some years ago the National Bureau of Standards developed a test which was intended to determine the "give" underfoot. The tests were made with a rod 1/4 inch in diameter applying a pressure of approximately 500 pounds per square inch for 30 seconds. The initial indentation was used as an approximate measure of the relative "comfort value." Since that time, the Small Homes Council of the University of Illinois reports that for all practical purposes as relating to the effect on human fatigue, there is no more "give" under heel or foot in linoleum than there is in concrete. (The difference in resilience between rubber and leather heels and soles of shoes is said to be of greater significance.) Resilience has value, however, for a flooring with little resilience is likely to be noisy and have a low comfort value in that sense.

The indentation of the flooring is related to its resilience. If the floor material dents badly under pressure and the surface does not then return to its original position, the surface will be marred and impaired in appearance to some degree. The denting caused by chairs and heavy appliances may be minimized by installing rubber casters or gliders on the legs of chairs or by placing cup-type rests under them.

To be most satisfactory, a flooring should not suffer appreciable permanent indentation in use from chairs, women's spike heels, and nails in men's shoes. The floorings tested had indentation values (lasting depressions) of from 9 to 15 one thousandths of an inch by the laboratory method used (see illustration). Visual observations made



Resistance to indentation

Indentations on floor coverings are unsightly and make for difficult cleaning and maintenance. The indentation characteristics of the floor coverings were determined by tests in which a weight of 100 pounds was applied to a 1/4-Inch diameter rod (giving a pressure of approximately 2000 pounds per square inch) for 30 minutes. The load was then removed and the thickness of the indented portion was measured after 120 minutes.

during this and other studies by Consumers' Research indicate that indentations of about 10 one thousandths of an inch are sufficiently noticeable to be objectionable. The linoleum and the inlaid vinyls and Sandran had values not exceeding this figure, they would be thus more desirable than the other floorings tested in respect to resistance to permanent indentation. The tests made on the floor in actual foot traffic confirmed these laboratory findings in general. The linoleum showed the least indentation and scratching; the roto vinyls, with the exception of Sandran, showed the most.

Most floor covering materials have excellent resistance to oils and grease, but they differ in their ability to resist the effects of common household cleaners and chemicals. For the housewife this means that for good maintenance it is best to wipe off everything as soon as it is spilled, or as soon thereafter as practicable. *Clorox*, lemon

Kinds of smooth-surface flooring

TYPE	COMPOSITION				
Printed enamel	Painted design on asphalt-saturated backing which is an integral part of product.				
Roto vinyl	Similar to felt base except that the w	vear			

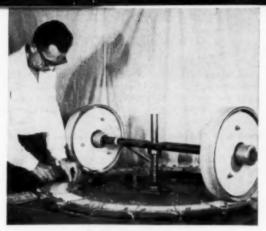
Vinyl, inleid Has a wear layer composed of vinyl resins, plasticizers, pigments and fillers, overlaid on a backing of various regular black base or alkali resistant materials.

layer consists of plastic materials.

Vinyl, homogenous Homogenous mixture of vinyl resin, plasticizers, pigments and fillers formed under pressure while hot.

Linoleum

Has a wear layer composed of "oxidized linseed oil," fossil and other resins or other oxidized oleo-resinous binder mixed with wood flour, mineral fillers and sometimes ground cork, and pigments and pressed on a "saturated felt" backing.



Resistance to wear

Samples of the brands tested were placed on pivoted sections of the circular track on the abrasion testing machine designed by Consumers' Research. A fine specially sieved sand was fed from a moving tube upon the track at intervals. The two wearing wheels passed over the track 28,500 times during the test (67,000 turns over each sample). Other samples were laid in a foot-traffic area crossed approximately 375 times a day. These samples were changed in position at regular intervals, so that each sample would get approximately the same wear.

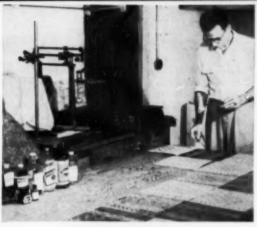
juice, Sani-Flush, merthiolate, and ink caused the most trouble to the floorings included in this study, with merthiolate staining all of the samples (tested when new) and ink staining all but three. Washing with warm water and detergent and cleaning with steel wool and waxing removed most of the stains. Where some stain remained, a mention is made in the listing.

Since easy care is a primary consideration in the selection of any resilient flooring, it is worth noting that all of the samples tested were easily cleaned with warm water containing a little synthetic detergent. Eventually all samples became dulled, and waxing would be in order if a glossy surface were desired, or if a fair or good appearance was to be maintained.

The floorings tested were surprisingly alike in resistance to igniting, when the flame of a Bunsen burner was applied to them, with the linoleum being best in this respect.

The ratings of the floorings take into consideration all the factors included in the test. If resistance to abrasion or to permanent indentation under concentrated load is a primary consideration, consumers should be guided by comments regarding these specific factors in each listing.

All products tested had felt backs, and were in rolls or sheets, but some of them are available in rug sizes and in tiles also. Prices given are usual retail prices but may differ, of course, from store to store. Retailers unwilling to incur the expense and stock problems of handling full rolls of rotogravure printed vinyls can sometimes obtain parts of rolls from their distributors at an extra charge, 10 to 20 cents per square yard above regular roll



Resistance to staining

Smooth-surface floor coverings are likely to be used in areas of the house where common household cleaners and other household chemicals will come into contact with them. Samples tested were checked in the "as received" condition and again after being abraded long enough to remove the surface finish originally present. Chemicals used included vinegar, household ammonia, merthiolate, writing ink, mineral oil, Clorox (sodium hypochlorite laundry bleach), cooking oil, Glim household detergent, lemon juice, Tide and Oxydol detergents, Oakite and Calgonite (popular household cleaners), Sani-Flush toilet bowl cleaner, and urea.

price. This additional charge will likely be passed on to the consumer.

A. Recommended

The following floor coverings retained their patterns throughout the abrasion test, but their appearance was affected, as noted in the listings.

Gold Seal Flor-Ever Inlaid Vinyl Berylstone, No. 2075 (Congoleum-Nairn Inc., Kearny, N.J.) \$2.95 a sq. yd. Inlaid vinyl. Available in 6-ft. widths, also 9 x 9 inch tiles. For use on above-grade floors of wood, concrete, or ceramic tile, including floors with radiant heating. Appearance after abrasion test, fairly good (dulled). Resistance to indentation, good; to damage by household cleaners and chemicals, fairly good. Was stained or discolored by ink and bleach.

Armstrong Linoleum, Spatter No. 5025 (Armstrong Cork Co., Lancaster, Pa.) \$2.95 a sq. yd. Linoleum, standard gauge (3/32 in.). Available in 6-ft. wide rolls. For permanent installation on suspended floors. Appearance after abrasion test, fair (dulled). Resistance to indentation, good; to damage by household cleaners and chemicals, good, though the linoleum was slightly bleached by Clorox household bleach.

Armstrong Corlon, Granette No. 6186 (Armstrong Cork Co.) \$3.75 a sq. yd. Inlaid vinyl. Available in 6-ft. wide rolls. For permanent installation on suspended floors and for sinks and counter tops. Appearance after abrasion test, fair (lost color). Resistance to indentation, good; to damage by household cleaners and chemicals, good.

Gold Seal Flor-Ever Deluxe Inlaid Vinyl, No. 6012 (Congoleum-Nairn Inc.) \$3.75 a sq. yd. Inlaid vinyl, For permanent installation on suspended floors. Appearance after abrasion test, tair (discolored). Resistance to indentation, good; to damage by household cleaners and chemicals, fair. Was stained by ink, lemon juice, and Sani-Flush.

Harmony House Best Quality Inlaid Vinyl (Sears-Roebuck's Cat. No. 37—526LM) \$2.19 a running foot, 6 ft. wide (\$3.29 a sq. yd.), plus shipping. Inlaid vinyl. Available in 6-ft. wide rolls. For use on wood or dry concrete above ground level. Appearance after abrasion test, fair (discolored). Resistance to indentation, good; to damage by household cleaners and chemicals, fair. Was stained by ink, lemon juice, and Sani-Flush.

B. Intermediate

The appearance of the B-rated samples was good, though the surface somewhat dulled, at the time of failure (wearing through of the patterned surface coating) in the abrasion test.

Sandran Sparkle, Stardust No. 175 (Sandura Co., Jenkintown, Pa.) \$1.59 a sq. yd. Roto vinyl. Available in 6, 9, and 12 ft. widths. Not meant for permanent installation, with use of cement. Resistance to indentation, good; resistance to damage by household cleaners and chemicals, good. Found to be the best of the rotovinyls over all.

Bird Super Vinyl, Linentex No. 1-8518 (Bird & Son, Inc., East Walpole, Mass.) \$1.39-\$1.49 a sq. yd. Roto

vinyl, standard weight. Available in 6 and 9 ft. wide rolls, also in 9 x 12 rug. Not meant for permanent installation, with use of cement. Resistance to indentation, poor; to damage by household cleaners and chemicals, good.

Gold Seal Forecast with Sparkle, Horizon No. P120 (Congoleum-Nairn Inc.) \$1.39-\$1.59 a sq. yd. Roto vinyl. Available in 6, 9, and 12 ft. widths or rug sizes 9 x 12, 12 x 12, and 12 x 15. Not meant for permanent installation, with use of cement. Resistance to indentation, poor; to damage by household cleaners and chemicals, good.

Harmony House Vinylcrest (Sears-Roebuck's Cat. No. 37—3206LM) 84c a running foot, 6 ft. wide; \$1.25 a running foot, 9 ft. wide (\$1.25 a sq. yd.); plus shipping charges. Roto vinyl. Available in 6 and 9 ft. wide rolls. Not meant for permanent installation, with use of cement. The same pattern as Bird Super Vinyl Linentex, but different color. Resistance to indentation, fair; to damage by household cleaners and chemicals, good.

C. Not Recommended

Armstrong Accolon, No. 9030 (Armstrong Cork Co.) \$1.39 a sq. yd. Roto vinyl. Available in 6, 9, and 12 ft. widths. Not meant for permanent installation, with use of cement. Appearance after abrasion test, fair (discolored). Resistance to indentation, poor; to damage by household cleaners and chemicals, good.

Recent reprints from Consumer Bulletin

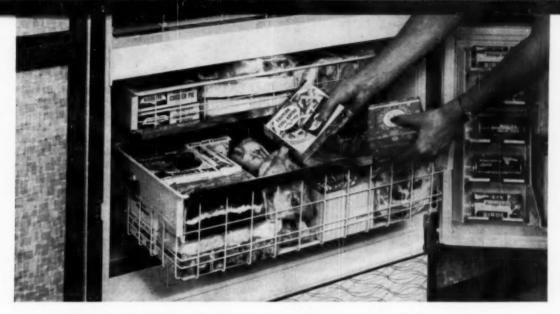
Title	Bulle		No. of pages	Price (stamps acceptable)	Title	Bullian		No. of pages	Price (stamps acceptable)
Contact lenses, by Pur-					Taking a trip by air	Dec.	'58	4	15c
man Dorman, M.D.	July	'59	3	10c	Classes of accommodations,	types o	f aircra	t, how to selec	t an airline to
A medical authority, who discusses the tiny invisible					travel by, and important tips				
eyebell.					Fire warning systems	Oct.	158	5	15c
The parking meter problem	July	'59	4	10c	Information that will help the	consum	er selec	t alarm equipmen	t for his home.
	Tests indicate that most types of parking meters now in use are unreliable devices and frequently short-time their customers.					Sept.	′58	4	10c
Automatic washing					Nylon cord tires are higher p	riced the	n rayon	-are they better	and stronger?
machines	May	'59	7	25c					
Discussion of features, and re	atings of	14 mode	els.		Electronic organs for churches Aug. '58 5 (mimeo)				
Fact and fancy in mail-					Churches	Aug.	30	5 (mimeo)	10c
order ads	Feb.	'59	3	10c	Copying devices for use				
Misleading and tricky advert	tising by	meil-ord	er companies.		in the office, school,				
Gadgets and "special-					and home	Mar.	'58	5	15c
ties" for autos	Jan.	'59	4	10c	Those labels on pack-				
Ice skates	Dec.	'58	4	15c	aged foods	Feb.	'58	3 (mimeo)	10c
Nine well-known brands are	e rated.				Manufacturers find ways to a	nake the	m hard	to read.	

Emendation to Consumer Bulletin

Bargains from Europe Page 30, June '59 Bulletin

Christmas cards: The Graphis Press, 45 Nuschelerstr., Zurich 1, Switzerland, advise us that they no longer offer the line of Christmas cards formerly

sold by them. They have sold out their stock and have no plans at present to reissue their Graphis cards. The prints of Toulouse-Lautrec posters and Utamaro woodcuts mentioned in the same article are still available, however.



Tests of 'frostless' refrigerator-freezer combinations and a 'standard' combination

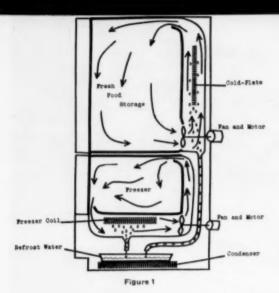
In the regular refrigerator-freezer combinations, the fresh-food storage or refrigerator compartment is usually defrosted automatically but the freezer must be defrosted manually (usually about two or three times a year). In the new "frost-free," "no-frost," "frostless," "frost-guard" appliance-call it what you will, for each manufacturer has a different name for it—the entire box is kept free of frost, without need for attention by the user. The price for this convenience, however, is high, for such combinations sell at prices as much as 10 percent or \$70 above those for regular comparable refrigerator-freezers, and it is questionable whether the average consumer will consider them worth the additional price, if he is aware of the fact that the non-frosting refrigerator-freezers require much more electricity for operation than the conventional kind. Eliminating a chore that must be done only occasionally can thus be more expensive than most people would wish to have it.

There are other advantages than the obvious one in the frostless models. In the usual freezers, frozen-food packages collect a covering of frost which makes it difficult to determine their contents, and the packages stick together; this is eliminated in frostless freezers, which keep the packages free from ice and frost. Ice cubes are dry without frost and do not stick together when removed from the trays and stored for future use, and as there is no frost collecting on the walls of the freezer somewhat more space is available for storage of packages.

How do the designers of no-frost freezer chambers accomplish elimination of frost? In the How many dollars a year are you willing to pay for the convenience of not having to defrost the freezer of a combination refrigeratorfreezer unit?

This article shows that it costs 40 to 100 percent more for electricity to operate a box whose freezer has the automatic defrost feature. One can, therefore, easily pay \$25 to \$55 a year extra just to have the use of a refrigerator-freezer that defrosts by itself, without attention by the owner. (A high charge for automation, and not the sort of information you're likely to get from the dealer or salesman!) After reflecting on the rather staggering extra costs of owning an automatically defrosted appliance, you may decide that a standard combination with a freezer that you will defrost manually as required will adequately meet your needs.

Frigidaire, the freezer coils, instead of being located around the walls of the freezer, are in a separate compartment below the freezer. A fan forces air over these coils, chilling the air to temperatures below zero; the excess moisture in the air is then deposited on the coils. This dry, cold air is drawn up through vents behind the back of the freezer and circulated into the freezer storage space, passes through vents at the front and thence back to the freezer coils. Once every 24 hours



these cooling coils are automatically defrosted with a built-in electric heater and the defrost water drains to a pan in the bottom of the box where it evaporates. The system in the refrigerator section is similar, except that the refrigerated plate is located behind the rear wall (see Figure 1) and defrosts during the off cycles.

In the Westinghouse, large refrigerated plates are located in a full-width duct behind the rear and bottom walls of the freezer compartment. A small blower circulates the dry refrigerated air throughout the freezer and over the plates. Frost collecting on these plates is removed after every 20 freezer door openings, by the use of a door-opening counter defrost control. This, at the 20th door opening, shuts off the freezer blower and opens a solenoid valve to permit hot refriger-

ant gas to by-pass the condenser and flow directly through the low-pressure side of the refrigerating system. The defrost period lasts from 6 to 12 minutes. In the food storage compartment a cooling plate concealed behind the rear wall warms up and melts accumulated frost during each off-cycle of the unit. The refrigerator section also has a blower with an automatic control, which shuts it off if refrigerator temperatures tend to get too low; this control avoids any risk of freezing fresh food.

The General Electric operates on a similar system except that in the GE the cooling coils in the refrigerator section are located at the top of the refrigerator space and are not concealed; the GE does not have a blower in the refrigerator section. Defrosting of the freezer is controlled by a timing device and occurs once every 24 hours.

If you buy a combination refrigerator-freezer (frostless or standard) you should not expect to be able to store anywhere near the amount of food the manufacturer claims, for the actual usable capacity will be considerably less (15 to 25 percent) than its rated advertised capacity.

Operation costs

It will be seen from Table I that costs (for electric current) for the frostless freezer combinations ranged from \$5.60 to \$7.65 per month or 43 to 63 cents per cubic foot. Use of electricity for operation of the frostless appliances is from 40 to 100 percent greater than that for standard refrigerator-freezer combinations with manually defrosted freezers. Thus, assuming a 15-year life for the appliance, the *extra* cost of owning a frostless

Table I

A comparison of estimated monthly operating costs of three 1959 "frostless" combination refrigerator-freezers and one regular type with manually-defrosted freezer tested by Consumers' Research. The rate for electricity is assumed to be $3\frac{1}{2}$ cents per kilowatt-hour. Costs of operation with electricity at higher and lower prices per kilowatt-hour can be figured by proportion. Thus for the *Frigidaire* at 2 cents per kilowatt-hour: $\frac{X}{7.65} = \frac{2}{3.3}$. X is calculated to be \$4.35, the estimated cost of operation per month at 2 cents per kilowatt-hour instead of $3\frac{1}{2}$ cents.

				operatin	d monthly ag cost at perature of			
				80°	90°			
Make	List price,		age capacity.			Percent running time	Average air temperature in freezer space, degrees	
ALUNE		rated	actual	cost,	cost,			
Frigidaire Frost-Proof FP-142-59	700	14.2	12.25	5.75	7.65	100	-8.0	
General Electric Frost-Guard BG-15S	700	14.8	11.3	4.30	5.75	58	+6.0	
Westinghouse Frost-Free DFM-16	700	16.1	12.9	4.20	5.60	71	0.0	
Coldspot N12D1	300	11.9	11.3	2.65	3.55	67	-3.0	

refrigerator-freezer could run from \$350 to \$800.

In many of the boxes, of all kinds, that Consumers' Research has tested, the lowest shelf and usually the hydrator drawer beneath it are too low, particularly for tall persons. Indeed even short persons must stoop to use them. In the General Electric and Frigidaire frost-free models tested, the top shelves were judged inconveniently high for easy access, particularly by short persons. Consumers' Research would like to see manufacturers reduce the "spread" between the top and bottom shelves of refrigerators and combination boxes. Such a change "would make less work for mother" without need for the usual increase in operating cost that seems characteristic of many of the conveniences and work-savers the manufacturers think up.

Frostless combinations

A. Recommended

Westinghouse Frost-Free Custom Imperial, Model DFM-16 (Westinghouse Electric Corp., Columbus, Ohio) \$700. A 2-door model, with freezer at the bottom. Performance in test

Time required to lower temperature from 110° to 46°, about average. While lowest in cost of operation per month of the frost-free models tested, the Westinghouse cost about 40% more for electricity to operate on a percubic-foot basis than the Coldspot with its manually defrosted freezer. In a room at 90°, with the control set to give 39° in the refrigerator section, average air temperature in the freezer was 0° (good). Time to freeze 3½ lb. of ice cubes, 2½ hr. (0.7 hr. per lb.), better than average. (See Table I, page 12, for costs of electricity for operation.)

Comments

Shelves in the refrigerator section are not adjustable, but arrangement of food space was judged fairly good. Flush-type door hinges permitted installation close to a

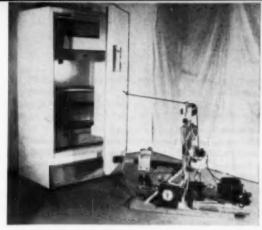


Figure 2—Electro-mechanical operating device used by CR to open and close refrigerator doors automatically at predetermined intervals during the tests discussed on page 16. The device is constructed with motors, a time clock, several types of relays, and a number of "micro switches."

wall or cabinets. In the freezer, the two wire baskets do not roll out far enough to make the contents readily accessible without an excessive amount of stooping. The ice-cube server is of simple design and operated satisfactorily. The handles on the butter and cheese, and egg compartments were considered sharp enough to present real hazards to the user. Freezer door is opened by a foot pedal. Force required to open magnetic door latches of refrigerator, 7 lb.; of freezer, 5 lb. (both satisfactory).

B. Intermediate

Frigidaire Frost-Preof, Model FP-142-59 (Frigidaire Div., General Motors Corp., Dayton, Ohio) \$700. A 2-door model, with freezer at the bottom.

Performance in test

Time required to lower temperature from 110° to 46°, somewhat longer than average. Operating costs, very high, and double that of *Coldspot* on a per-cubic-foot basis. With control set to give 39° in the refrigerator section, average air temperature in freezer was -8° (very





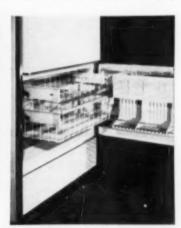


Figure 3—The freezer space was most accessible on the GE refrigerator-freezer using a drawer for frozen foods, as shown at the center, above, but such a drawer is somewhat harder to open than a door. On the Westinghouse (left), the wire baskets could be pulled out only a limited distance. The Frigidaire (right) was better in this respect than the Westinghouse.

good, but unnecessarily low, when cost of electricity for operation is of importance to the user). Compressor ran continuously. Time to freeze 5½ lb. of ice cubes, 4 hr. 50 min. (0.9 hr. per lb.), satisfactory.

Comments

Shelves in refrigerator section were not adjustable, but arrangement of the space was judged fairly good and convenient to use. Half-shelf at top, however, was too high for persons of short or medium height. In addition to the usual vegetable crisper there was a large transparent plastic vegetable crisper in the door. In the freezer, two roll-out wire baskets made the contents fairly accessible. The ice ejector, located in the freezer door, was of simple design and operated satisfactorily. Freezer door was operated by a foot pedal. Force required to operate refrigerator or freezer door (nonmagnetic latch), 10 lb. (satisfactory). This box would not be a desirable purchase for those to whom high operating costs for electricity would be an important

General Electric Prost-Guard, Model BG-158 (General Electric Co., Louisville) \$700. A 2-door model, with freezer at the bottom.

Performance in test

Time required to lower temperature from 110° to 46°, about average. Cost of electricity for operation, high on a per-cubic-foot basis (about 60% higher than for *Coldspot*). With control set to give 39° in refrigerator section, average air temperature in freezer was 6.0°, too high (frozen-food temperature would be the same, as there are no refrigerated surfaces in contact with food packages). Time to freeze 2 lb. of ice cubes, 2 hr. 30 min. (1.2 hr. per lb.), longer than average.

Comment

Three of the shelves in the refrigerator were fully and conveniently adjustable; they were pivoted at one side, permitting them to swing out. This feature made the refrigerator section very convenient and easy to use, but reduced the available storage space. Top shelf, however, was too high for persons of short or medium height. Three of the door shelves were also fully adjustable, but none was wide enough to accept 2-qt. milk containers. Flush-type hinges and flush back (no projections at the rear). The swing-out egg drawer has no rack; eggs are piled on top of each other. Refrigerator door opened by a foot pedal (convenient). Freezer is of the drawer type and judged not as convenient to open as the type with a

Table II-Physical Characteristics

	Frigidaire Frost-Proof FP-142-59	General Electric Frost-Guard BG-15S	Westinghouse Frost-Free DFM-16
Dimensions			
Total volume, mfrs.' rating, cu. ft.	14.2	14.8	16.1
Total volume, actual usable, cu. ft.	12.25	11.3	12.9
Height, width, depth, in.	69.7 x 32 x 29	71 x 291/4 x 261/4	65.7 x 33 x 31
Freezer section			
Capacity, mfrs.' rating, cu. ft.	3.8	4.8	5.4
Capacity, actual usable, cu. ft.	3.0	3.3	3.6
Location	Bottom	Bottom (drawer type)	Bottom
Arrangement	2 sliding wire baskets space for ice-cube trays 2 %-width door shelves* racks for 5 cans	1 sliding wire basket 1 fixed wire basket sliding drawer for ice-cube trays and ice-cube storage	2 sliding wire baskets ice-cube server shelf for ice-cube trays 2 %-width door shelves fixed
Ice-cube trays	4	2	3
Refrigerator section			•
Volume, actual usable, cu. ft.	9.25	8.0	9.3
Shelf area, actual, sq. ft.	17.2	13.5	16.9
Number of shelves and type	1 full width fixed 1 half width fixed 3 sliding (all non-adjustable)	3 swing-out adjustable 1 full width fixed	3 2/3-width (1 fixed, 2 sliding 1 full width fixed
Meat drawer	Yes (metal)	Yes (plastic)	Ves (plastic)
Crisper	Yes (metal) (second crisper in door)	Yes	2 half width (metal)
Shelves in door	2 fixed Hinged drop-down plastic crisper	3 adjustable 1 fixed	\$ approximately 1/2 width fixed
Butter compartment	Yes (heated)	Yes (heated)	Yes (not heated)
Cheese compartment	Yes (a utility drawer)	No	Yes
Egg trays and capacity	2 drawer type (20 eggs)	1 drawer type	1 drawer type (24 eggs)

[•] Removable ice ejector occupies about 2/3 width of one shelf.

hinged door. As the freezer drawer opened almost fully, the contents of the two wire baskets and the sliding tray holding the ice-cube remover and storage tray were fairly accessible. This type of design does not permit storage in the freezer door. Force required to open magnetic door latch of refrigerator, 10 lb. (satisfactory), but the mechanical latch of the freezer drawer required a force of 22 lb. to open (much in excess of the federal requirement of not over 15 lb. for a refrigerator or freezer door). The drawer type was judged also to be more dangerous than the door type freezer space as a small child trapped inside, e.g., by action of a child companion, would be unlikely to be able to escape even if the force required was less than 15 lb.

Standard-type combination (requiring defrosting of freezer)

A. Recommended

Coldspot, Model N12D1 (Sears-Roebuck's Cat. No. 46—9245) \$300, plus freight. Size, $59\frac{1}{2}$ in. high, 32 in. wide, and $29\frac{3}{4}$ in. deep. Actual capacity of freezer, 2.9 cu. ft. Manufacturer's rated total volume, refrigerator and freezer, 11.9 cu. ft. Actual total volume as measured by Consumers' Research, 11.3 cu. ft. Refrigerator shelf area, 14.9 sq. ft.

Performance in test

Time required to lower temperature from 110° to 46°, better than average. In the no-load test at 90°, the average air temperature in the freezer compartment was -3.0° (good). Cost of operation per month, \$3.55 (31c per cu. ft.), about average for a combination of this type. Time to freeze 3 lb. 4 oz. of ice cubes, 2 hr. 45 min. (0.8 hr. per lb.), satisfactory.

Comments

The refrigerator section had one full-width and one halfwidth fixed-position shelf, one full-width glass shelf over crisper, and one full-width sliding shelf. The crisper was of metal, semicircular in shape, pivoted so that it could be revolved to make the contents more accessible. No meat drawer was provided. The refrigerator door had two full-width fixed-position shelves, a butter and a cheese compartment, but no egg trays. A small extra shelf was provided in the freezer to fit over the two "quick-release" ice trays and the freezer door had one fixed-position full-width shelf. The arrangement of shelves was considered good, but the vegetable crisper was below the 20-in.-from-the-floor level, and hence not conveniently accessible. Flush hinges permit the box to be installed close to an adjacent wall or cabinets. The magnetic door latches were very easy to open, requiring a pull of only 4 lb. for the freezer door, 5 lb. for the refrigerator door.

RCA-Whirlpool refrigerator

THE following refrigerator was received too late to be reported in the August issue with other refrigerators of the same type.

B. Intermediate

RCA-Whirlpool Deluxe, Model F-12-1 (Whirlpool Corp., St. Joseph, Mich.) \$270 (\$24.50 per cu. ft.). Size, 59 in. high, 32 in. wide, 30 in. deep. Freezer: actual capacity, 1.8 cu. ft.; chiller tray, 0.5 cu. ft. Total volume (manufacturer's rating), 12 cu. ft. Actual total usable volume as measured by CR, 11.0 cu. ft. Refrigerator shelf area, 13.6 sq. ft.

Performance in test

Performance in the pull-down test (time required to lower temperature from 110° to 46°), fair. In the no-load test at 90°, the average air temperature in the freezer compartment was 9° (relatively good). Cost of operation per month, \$1.40 (13c per cu. ft., desirably low). Running time, 54%. (See table, page 9. of the August BULLETIN.) Time to freeze 3 lb. 7 oz. of ice cubes, 3.3 hr. (1 hr. per lb., approximately).

Comments

Shelves in the refrigerator were not adjustable, but were judged to be well arranged, and space was provided for the storage of large items. Refrigerator has a full-width metal vegetable crisper. The two door shelves are non-adjustable; storage is provided for two dozen eggs, and there is a butter compartment. Door shelves, about average in storage capacity. No meat drawer provided, but the chiller tray can be used for the purpose. The baffle is located in the chiller tray and controlled by a

knob on the front of the tray which turns the baffle to Summer or Winter position (considered a good feature, as the housewife can tell at a glance whether the baffle is in the desired position). The refrigerator is equipped with "flush door-hinges," permitting installation in a



corner or flush with kitchen cabinets. Bottom shelf over crisper, and the crisper itself are considered too low for easy access. Light bulb was not protected by a shield or cover (a disadvantage). Door has a new type of magnetic gasket which is claimed to provide a positive seal all around the door. (These gaskets may be satisfactory but sufficient time has not elapsed since their introduction to determine how well they stand up with time and use.) Required a pull of only 6 lb. on the handle to open the door. Manual defrosting. Judged fairly easy to clean, and if pull-down time had been shorter, the RCA-Whirlpool would have warranted an A rating.

Opening refrigerator doors costs money

Tests indicate that opening and closing of the door of a refrigerator during the daytime does not cause wide fluctuations in the temperatures of the foods in the food storage section. Door opening does tend to produce slightly more favorable (lower) temperatures in the freezing chamber, but with a substantial increase in the amount of electricity required for operation.

A REFRIGERATOR is designed for the preservation of perishable foodstuffs for short periods of time, usually for a week or less. Most foods, if kept at their ideal storage temperature, would have a greatly prolonged life. To provide the range of temperatures required for many kinds of foods would be impracticable, however, with the present type of home refrigerators. (If and when the new refrigerators operating on the principle of thermoelectric junctions are fully developed, it may be possible to provide a number of sections or chambers each maintained at the most desirable temperature for the food to be kept in it.)

Bananas should be stored at temperatures not lower than 56 degrees, fresh meat, which freezes at 28 to 29 degrees, should be kept just a few degrees above the freezing point, at 32 to 34 degrees; ripe tomatoes not below 50 degrees. (Partially ripened tomatoes will ripen best if held at 60 to 65 degrees.) In practice it has been found that air temperatures of 37 to 43 degrees in the general food storage space are very satisfactory (with reasonable economy) for most foods, and at settings in this range there is no danger of accidentally freezing some of the foods. It is also generally accepted that temperatures as high as 50 degrees for short periods of time which may occur before and after meals when the refrigerator door is frequently opened do no particular harm.

The standard tests for refrigerators are made with no food in the refrigerators and with the doors closed; temperatures of the enclosed air are measured continuously at various parts of the box. In the freezer section, the average temperature of the frozen food itself will likely be about 5 degrees lower than the air temperature as measured because some of the packages are in contact with the refrigerated walls and bottom of the freezer compartment. In "frost-free" freezers, the frozen food temperature will be the same as the air temperature because the packages are not in direct physical contact with refrigerated surfaces.

To check the performance of refrigerators loaded with food and under conditions similar to those in the home use of refrigerators, with the door being opened at intervals during the day and left closed all night, several of the refrigerators which had been given the standard tests as reported in the August issue were subjected to some further tests. During these, simulated loads of food proportioned to the size of the box were stored. In the period from 8:30 A.M. to 5 P.M., refrigerator doors were opened every 15 minutes for 15 seconds by an automatic electro-mechanical device; from 5 P.M. to 8:30 A.M., the doors were kept closed.

It was found that during the period in which the doors were opened and closed the food temperature in the refrigerator section increased by a maximum of about 3 to 4 degrees over that in a box with the door kept closed; in storage sections on the door, the increase was about 4 degrees. In no case did the temperature in the box exceed 50 degrees, and the maximum temperature lasted only for short periods.

In the freezer storage space, food temperatures dropped a little, a maximum of about 2 degrees, attributed to the fact that opening and closing the doors caused the refrigeration compressor to run more frequently. This more frequent running of the motor and compressor was found to cause an increase of 30 percent or sometimes even more in cost of operation. The introduction of quantities of warm food also causes the refrigerator to run more frequently.

It was concluded that the standard no-load tests which Consumers' Research has used in the past as a basis for rating refrigerators is satisfactory. It enables CR to judge with reasonable accuracy the behavior of various refrigerators in normal household use, in relation to each other.

Exercising and reducing machines

Can you get rid of fat electrically?

NEVER BEFORE have women been offered so many ways to cut down excess poundage. These range from reducing candies and chewing gum to massage belts and vibrators, from "crash diets" to electric "shock" machines. Most expensive are the devices which, according to advertising claims, will make reducing easy and pleasant, or better still, simply redistribute the pounds to best advantage, with no need to reduce one's weight.

Exercising devices aren't new. The Journal of the American Medical Association notes that practically every generation since the middle of the 19th century has seen the manufacture and sale of exercising and vibrating machines. According to the Journal, a Dr. Gustaf Zander, of Stockholm, first used mechanical equipment for massage and exercise back in the 1850's. After a few years' popularity, the machines fell into disuse. The next revival was in the 1920's when the machines were sold with claims not only for reducing weight but for preventing or curing arthritis, bursitis, stroke, multiple sclerosis, and heart trouble.

A physician specialist consultant to Consumers' Research advises in general against motor-powered exercising equipment, taking the position that one gets exercise best by working one's muscles, not by having them worked for one. He thinks that a lot of people buying motorized exercising gadgets would be better off with a brisk walk.

It is profitable to sell reducing devices, of course, and there is not much money to be made by promoting the habit of walking for exercise and recreation. It is to be expected that advertisers will not encourage consumers to engage in a simple, traditional, time-tested, inexpensive technique but will instead urge them to buy something new and commercial.

A big and prosperous business

The magnitude of the vibrating-reducing business can be judged in part by the success of a leading manufacturer of vibrating furniture, *Niagara*. It is reported that during the first year of its business, 1949, it did a volume of \$10,000. Sales for 1958, on the other hand, totaled \$35,000,000.

The Food and Drug Administration of the U. S. Department of Health, Education, and Welfare has been conducting a vigorous campaign against misleadingly advertised vibrators. In one release

Can you eat your cake and keep your figure?

It's not likely. "There is no easy way to weight reduction. The only safe and effective way to reduce without medical supervision is the hard way—eat less, count your calories, and stay with your diet consistently. Seriously overweight persons should consult a physician before attempting any weight reduction program."—Food and Drug Administration release

last year the Department reported:

According to expert medical opinion, the benefits of vibrators are limited to temporary relief for minor physical conditions. They may be soothing and relaxing to the user and help to relieve minor aches and pains due to fatigue or overexertion. They should not be represented as effective for treating diseases or weight reduction.

Despite the fact that the Food and Drug Administration is continually warning retailers and consumers, as well as manufacturers, that regulations forbid offering vibrators for weight control, devices including "massaging" and "vibrating" pillows at \$5 to \$11, and shaking chairs, retailing at from \$135 to as much as \$400, are still being offered with claims for reducing their users' weight. Direct claims for reducing may not appear in the advertisements, but the salesman is pretty clever about suggesting what the advertising may omit. (Of course, if you don't want to shake off weight you can buy one of those couch-type vibrators that will allegedly either put it on or shake it off, depending on the buyer's wishes.)

Devices of many kinds

Many kinds of reducing devices are sold. Overweight consumers who don't mind standing up for a massage are offered a belt-actuated massaging device at the relatively modest price of \$30 to \$90. On the other hand, those who like to lie down while they are "exercising" may find something to their fancy, though hard on the pocketbook, in the oscillating tables. There are a number of different brands on the market (Dyna-magic, Relaxalon, Salon-ette, Slimtone, Stauffer, Vibra-master, for example) selling at about \$150 to \$300, with a

"bargain" or two at \$60. Basically, the tables function either by rocking the user (or parts of her) briskly by means of a motorized section or panel. In some makes, the center panel moves, and the two ends of the table are stationary. The motorized panels of some models move in one direction only, for example, forward and backward, and must be turned to get a side to side movement. Some tables, however, have a panel that moves in two directions in a plane without need to turn the unit itself. This is advertised as being an advantage, and perhaps it is, of a sort.

Electricity with chin straps

Still another kind of machine is one that sends an electric current into the body. The Relax-Acizor is a device of this kind. It is advertised to "reduce(s) the size of your hips, waist, abdomen, thighs...and other parts of your body...a new way that tightens, tones, and 'pulls in' muscles.... It does this while you REST luxuriously at HOME...requires no weight loss.... No pills are used." It consists of a box with a number of straps, each with a connection to be plugged into the device. There's a band for the hips, one for the waist, and one for the chin. Contact pads are set in the bands at various points, and there are extra pads available to be affixed to straps for use at other parts of the body.

The pads must touch the bare flesh. Thus use of the *Relax-A-cizor* requires that the patient disrobe, at least in part. Prices range from \$200 to \$325, depending on the number of attachments that can be used simultaneously. Devices of this class are available second hand. The classified ad section of the New York Times (Sunday edition) in March 1959, for example, carried four advertisements for *Relax-A-cizor* devices; one offered a *Relax-A-cizor* at half the original price.

Medical advisors of the Food and Drug Administration doubt that the device is significantly effective for reducing the size of the hips, waist, etc., or that it "eases off those bulges" as claimed by the distributors.

One of the medical consultants of Consumers' Research advises that for normal people there would seem to be no need for applied electrical stimulation. If you shouldn't exercise because of extreme illness or weakness, you would be unwise to use electrical stimulus apparatus unless directed to do so by your physician. Electrical stimuli will twitch the muscles, and orthopedic surgeons make occasional use of the method in their practice, in cases where the patient has lost the use of a nerve by its being severed in an accident, for example. In that case, medical men may try to keep the muscle active by electrical stimulus until the nerve

grows back and reestablishes continuity. This may take six months or so.

Selling the slimming

Most of the exercising devices are sold by salesmen who will demonstrate and give instructions to customers, often in their own homes. At least one, the Stauffer Couch, is sold only in the home. Its salesmen suggest a reduced calorie diet, prescribe an exercise schedule, and follow up at regular intervals to see how the "patient" is making out.

Read the contract. Installment contracts are likely to be the rule rather than the exception for making payments for devices of this kind. As with any installment contract, the consumer should take care not to sign something she doesn't fully understand. A home trial offer that is accepted may turn out to bind the customer to paying for the unit, whether she finds it satisfactory or not. The total amount that must be paid is the important thing; don't let your attention be diverted from the matter of cost by any alleged bonuses, premiums, or "special offers." Philadelphia, the District Attorney's office was obliged to launch an investigation into the operations of one firm dealing in electrical massage vibrators to determine whether the firm was illegally using a magistrate's court to collect grossly inflated bills from buyers of its merchandise. One customer said that she purchased the device from a salesman with the understanding that the price was \$30 with a down payment of \$5.50. After she signed the purchase order the salesman filled in the price of \$199.50. She claimed she never received the pillow, but she did receive a bill and subsequently a summons to appear in the magistrate's court.

For those who consider one of the reducing devices too bulky to have around the house, there are exercises to be taken in a salon. Such courses are often expensive. It is advisable not to sign a contract for a series of treatments, for several reasons. First, it is quite possible that the novelty will wear off after the first two or three sessions, particularly when it is apparent that the exercises, no matter how much fun they are at the salon, are not going to accomplish a reduction in weight without need to adhere to a rigid diet schedule. In the second place, large and well-known studios or health institutes in several cities have gone into bankruptcy or simply closed their doors, leaving clients holding "lifetime" or long-term treatment contracts they had paid for that are now worthless and quite unenforceable.

If you count the money spent on reducing
(Concluded on page 29)

Miniature water heaters

Several different kinds of small, portable electric water heaters are available. One type will provide a thin stream of running hot water when it is attached to your cold-water faucet. Another is of a size best adapted to making a cup of tea or instant coffee. A third can be used to heat the water in your washer or the bathtub. Some of the devices are relatively safe electrically, while others are not, but caution is needed and some should not be used at all because of the hazard of electric shock that is present or may develop.

ONE type of portable heater is designed to be attached in a more or less permanent fashion to a water faucet. When the faucet is turned on, water circulates around the heated wires and is discharged, warmed, from the device. The rise in water temperature is dependent upon the amount of water flowing per minute. Some faucet heaters, such as the Landam, are relatively safe electrically. because they are designed so that the water does not come into contact with the heating wires. In most faucet heaters Consumers' Research has seen in past years, however, such as the Therm-A-Tab. the water comes into direct contact with the wires. With this design the water coming from the device may be both thermally and electrically "hot." Besides, the metal enclosure of the device can, and often will, present a serious hazard of shock. if it should accidentally come loose from the faucet.

Notably popular in recent years is a type of portable water-heating device, made in both Germany and Japan, which is very convenient for heating a small amount of water, in a cup or glass. All the various brands Consumers' Research has examined-there were several-consisted essentially of a small chrome- or nickel-plated tube in the form of a coil about 1 inch in diameter. The ends of the heater wire are attached to the connecting cord within a small plastic connection block. (See Figure 1.) The electric heating element was enclosed in and insulated from the metallic tube, and thus did not come into direct contact with the liquid being heated. In this particular respect the small coil type was relatively safe, electrically. Unfortunately, however, the connecting block was not sealed, and if accidentally immersed or wetted, as might readily occur in normal use, a considerable amount of the electric current could flow at times through the wet connections to the outer metal tube, making the device hazardous to use. This stray current would cause the water in which the heater was immersed to become electrically alive and a source of danger to anyone who might, for example, stir the water with a spoon while a part of his body was in contact with an electrical ground such as a lamp or radiator, or grounded appliance or counter top.

It is likely that these small immersion heaters would be satisfactory electrically if they were hermetically and permanently sealed at the points at which the heating elements are joined to the connecting cord. Indeed, a type of immersion heater having a larger enclosed element, the *Shockless*, is sealed and was found to be safe to use. It is too large to use in a cup or glass, however; it is better suited to heating water in a kitchen utensil or pail.

A third type of immersion heater is exemplified by the *Lux* and *Jiffy* brands reported in the October 1957 BULLETIN. Both of these devices were very dangerous to use; an appliance is still

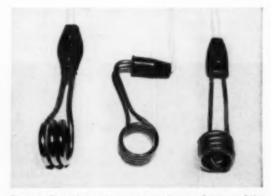


Figure 1—Three designs in common use by manufacturers of the currently popular small immersion heaters. The plastic connecting blocks at the top (in which the electric cord is attached to the heating element) were not watertight, as they should be if shock hazard is to be kept at a minimum.

sold under the Lux name. This kind of heater employs an uninsulated, bare heater wire in direct contact with the water; the effect is to make the water and the metal pot or pail containing it electrically alive. With this kind of heater, one must never touch the water or metal container while touching, at the same time, a grounded object such as a metal sink, water piping, or faucet, for example. Anyone is likely, in such circumstances, to receive a severe shock, and in some instances death may be the penalty paid by the consumer for the manufacturer's ignorance of the basic principles of electric appliance design. Indeed, one third of the bathroom electrical fatalities in one year, some years ago, were due to heaters of the kind which had the wire of the heating element in direct contact with the water being heated.

Hot water capacity small-costs high

The many advertisements which are seen for portable heaters of all types, such as "continuous running hot water from your cold water faucet,' "exceedingly low cost operation-costs only a few cents a day to use," and "heats water in a jiffy," lead many to believe that the heaters are indeed the answer to the hot-water supply problem of those who do not have need for a full-scale permanent means for heating water. Such advertising is, however, quite misleading, for the amount of water that can be heated in a minute is very small, even with a heater employing a 1380watt element. (1380 is the maximum wattage permissible in a portable appliance that may be plugged into a 15-ampere branch circuit with more than one outlet.) In addition, cost of operation is about three times as high as with the more conventional methods of electric water heating (with which special rates for electricity are usually available) and very much more expensive (five times or so) than when gas or oil fuel is employed for heating water.

Selecting a portable water heater

The first and primary requirement to be met is that the device be listed by Underwriters' Laboratories. Manufacturers who obtain this listing are almost certain to indicate the fact by affixing the UL label—or stamping the letters UL in a circleon the body of the device. The presence of the label on the plug or cord alone is not sufficient. For this reason, advertisements must be read carefully, for sometimes the UL label will be displayed prominently in an ad, but one will find. on reading the fine print, that the line cord is the only part which was subjected to U.L. inspection. Indeed, in many instances you won't find out until you buy the device whether it really had U.L. approval. Second, examine the heater carefully and make certain the manufacturer's name and address are clearly (and permanently) embossed or stamped on it. It is reasonable to assume that a manufacturer's omission of his name is intentional; he may wish to avoid or reduce the legal risks for any accidents that may be caused by his product. For obvious reasons one will usually be wise to buy appliances made in the United States, when there is any possible question of injury to person or property through a defect or failure in design or manufacture. Seeking legal redress in a foreign country may often be a pretty nearly hopeless job for an American citizen. A third, and desirable, inclusion is a thermal control, or a thermostat which will turn the device off before harmful overheating occurs. Instructions usually warn users that heaters should not be plugged in unless they are immersed, because the element is likely to burn out quickly when not cooled by contact with a liquid. (With such misuse, there is also a fire hazard.) A thermostat control mitigates this problem and tends to reduce the likelihood that the device would cause a fire if left on, unattended. Indeed, inclusion of a thermostat or







Figure 2—The Landam faucet water heater, on the left, is representative of a design that is relatively safe, because the water does not come into contact with the heating element. In the Therm-A-Tap, center, the water circulates around the bare current-carrying heating wire before it is discharged. This latter design may present a serious shock hazard. The Super Shockless Immersion Heater (see listing) is at the right.

circuit opening device is apparently mandatory, as it should be, if the device is to receive U.L. approval, or an A rating by Consumers' Research.

In the listings, two water heaters have received *B-Intermediate* ratings because they did perform their intended function, and both were found to be electrically safe when tested. We would like to emphasize the fact that users of either of these devices should take particular care to follow the manufacturer's instructions regarding their operation. There is a possibility, too, that, with prolonged use, either type of unit might become electrically unsafe.

If you ever receive even a very slight shock from any water heating device, take it out of service immediately and either have it repaired by the manufacturer or discard it where no one else may find it and use it. Listings are in alphabetical order in the B- and C-rated groups.

B. Intermediate

Landam Automatic Water Heater, Model A (Landam Products Corp., 43 Allenwood Road, Great Neck, L.I., N.Y.) \$24.95, list (less 15% when purchased direct from manufacturer). Faucet type. Heater is turned on and off automatically with the turning of the faucet. Water runs cold when the device is not plugged in (no need to remove from faucet). Measured input, 1500 watts. Capacity was limited; takes about 11/2 min. to supply 1 qt. of 130° water (from an initial temperature of 60°F). Higher temperatures could not be obtained because of an inbuilt pressure-switch which turned off the heater at low rates of water flow. (The switch is a desirable feature because it removes the possibility of accidental scalding, which could occur with the Therm-A-Tap type of faucet heater.) The Landam would be worthy of an A-Recommended rating if checked and listed as approved by Underwriters' Laboratories. ¶A later model, announced by the manufacturer after Consumers' Research had purchased the sample tested, is provided with an all-plastic case, a neon on-off indicating light, and a new, convenient type of faucet connector-all desirable improvements. ¶A 1500-watt appliance should not be plugged into any outlet on a circuit to which other appliances are connected.

Super Shockless Immersion Heater (Kneisley Electric Co., Toledo 3, Ohio) \$7.95. Measured input, 1000 watts. Sealed element does not come into contact with liquid being heated. The Super Shockless passed Consumers' Research's tests for electrical leakage. It was found convenient to use. ¶Later models, TA-10 and TA-15, listed by U.L., were not tested. They are similarly constructed but have a built-in circuit-breaker to open the circuit in the event the device is inadvertently plugged in but not immersed.

C. Not Recommended

Hastings-Taxi Immersion Heater (Hasting's Products, Inc., 141 Fifth Ave., N.Y. 10) \$2.98. Input, 280 watts. 1-cup type, imported from Germany. Serious shock hazard present if upper part is accidentally immersed or gets wet (see text of article).

"Hot Rod" Immersion Water Heater (Hoffritz for Cutlery, 49 East 34 St., N.Y. 16) \$3.50. Input, 450 watts. 1-cup type heater, imported from Germany. Serious shock hazard present if the upper part (connecting block) is accidentally immersed or gets wet (see text of article).

Liliput Immersion Water Heater (United Cutlery & Hardware Products Co., 108 E. 16 St., New York 3) \$2. Input, 300 watts. Small, 1-cup type heater, imported from Germany. Serious shock hazard present if upper part is accidentally immersed or gets wet (see text).*

*Note: Consumers' Research has seen advertisements for other small immersion-type heaters—1-cup type—for \$1 and up. One of unknown brand (no name and address) which was made in Japan presented when it was tested a shock hazard similar to that present in the Hastings, Liliput, and "Hot Rod."

Super-Lux Water Heater (The Lux Co., Inc., Elkhart, Ind.) \$2.60. 1300 watts. Immersion type, with electric wire in direct contact with the water being heated. This is inherently a very hazardous type of construction which does not reflect an engineering knowledge of proper appliance design, and which can be the cause of a fatal electrical shock.

Therm-A-Tap Water Heater (Master Mechanic Mfg. Co., Burlington, Wis.) \$4.95, plus postage. Faucet type, with open-coil heating element. Serious potential shock hazard present.

Gifts and bequests to Consumers' Research

We believe that readers of Consumer Bulletin will be glad to bring the work of Consumers' Research to the attention of those who might be in a position to give gifts or bequests. It would be most helpful if our readers and friends would bring out, in discussing our findings with their friends and professional associates, the educational and public service nature of the work of Consumers' Research. Our reports contribute not only to the education of the individual, with respect to articles he buys and uses, but also to improving the economic understanding of the public on ques-

tions concerned with the functioning of people as consumers, including matters of health, safety, economy, and efficiency in use of products and services.

You may be sure that any gift or bequest to Consumers' Research, Inc., will be used in a constructive fashion, directly in the public interest. We hope you may bring the desirability of such aid to the attention of all with whom you are in contact who might be in a position to make a gift or bequest to further the work of one of America's most useful public service institutions.

Hold that salt!

Most of us use far too much salt.

Restraint with the salt shaker

may improve health and lengthen life
for many persons.



A PHYSICIAN has written that an army of sick people live among us who suffer the consequences of consuming too much salt.

Medical men have long been aware that many people use salt in excessive amounts, indeed, five to ten times the amount the body actually

The use of salt in excess is not only a contributing factor in obesity and heart disease but is believed to be a major element in the development of a common type of high blood pressure, a disease known as "essential hypertension." It may even be a factor, in the view of one physician, in causing atherosclerosis (the most common form of heart disease). (Moreover, careful statistical studies have indicated that higher rates of tooth decay go with increases in the use of salt in seasoning foods.)

Salt may even have a relation to loss of hair, according to one study; the investigator, a Scandinavian, noted in repeated tests that an increase in the amount of hair loss was manifest in one patient after two days or more on an unrestricted salt diet following a diet low in salt. One medical investigator found that reduction of salt intake improved the condition of a number of patients treated for insomnia and "tension states," and patients became more relaxed and less excitable.

Salt use a habit

To a large extent the use of salt with food is a habit, or, as one medical commentator put it, a kind of "addiction." Use of salt is an "induced appetite," like smoking and drinking alcoholic liquors, no doubt often a matter of social custom, rather than reflecting a natural appetite or physiologic need.

That salt in the amounts customarily used is not necessary is shown by the fact that most normal persons who use salt excrete it constantly as a surplus chemical. Salt is a compound of sodium and chlorine, containing 40 percent of sodium. The amount of sodium consumed in food and beverages closely determines the retention and excretion of water by the body. If too much salt is consumed, an excessive amount of water accumulates in the tissues of the body.

In early times salt was so prized that it was a mark of favor and rank to seat a person "above the salt" at the table. Among the ancients, table salt, because of its precious character, was also elevated to a high position in religious rites, ceremonies, offerings, and sacrifices. In today's economy of abundance, salt is no longer a precious, scarce commodity; the lowliest household may permit its members to consume all the salt they care to.

Some argue that, because certain wild animals go to great distances to obtain salt, it must be a physiologically necessary addition to food for all animals. Animals with hoofs, which live on herbage, green foodstuffs, do seek out sources of salt, but carnivores (flesh-eating animals) get the salt they need from the natural salt content of the animal food which they eat.

There seems to be a considerable mythology connected with the matter of "salt licks" and the gathering of animals from far and wide to lick the "salty" soil. A chemist who made study of salt licks in the Rocky Mountains of Montana found that the one chemical property all salt licks had in common was a complete absence of sodium chloride. He decided that the predilection of animals for the mud in so-called salt licks must be due to a craving for some mineral ingredient other than salt.

It is well to remember that people who write magazine articles and recipes are usually not aware of important medical aspects of food and diet. One of the popular new credit card organizations printed an item advising a "heavy hand" on the salt shaker, suggesting that for healthy people everything should be salted, and very freely, to produce "absolutely sumptuous flavors." The author even argued that free use of salt is basic to health and civilization of man and to the national economy. Such advice may be fine for the salt trade but can be very bad for consumers in general.

Salt use clearly related to high blood pressure

Dr. L. K. Dahl, an expert in the medical aspects of salt, found that primitive peoples are practically free of hypertensive (high blood pressure) diseases and likewise consume little salt, while on the other hand Negroes in Jamaica who use a great deal of salt and salty meats and fish have a much higher number of cases of hypertension than either whites or Panamanian Indians in the same environment. The same situation has been found in the Southern states in the United States, where Negroes suffer several times as often from high blood pressure as the Southern white people.

In one study, among 135 persons with a low salt intake, only one person was found to have high blood pressure, but there were 61 that had high blood pressure among 581 with a high salt intake (defined as persons who add salt to food before tasting it). The largest number of "hypertensives" was found among those who were overweight and habitually consumed large amounts of salt. Another investigator, in a series of experiments with animals, found that rats fed larger than normal quantities of salt showed high blood pressure, heart muscle damage, hypertrophy, and artery damage and other defects similar to those seen in human hypertensive patients.

General advice on limiting salt in the diet

Dr. Dahl tentatively recommends that the maximum salt intake be about one to four grams per day, up to five grams for adults without a family history of hypertension (5 grams is about half the usual daily intake in the United States). He advises the "elimination of frankly salty foods from the diet" and says that one should use the salt shaker sparingly, if at all. (Five grams per day is at least 10 times the amount of salt that is actually needed for health and normality of the body tissues and the blood.)

Dr. William Dock, an eminent specialist on heart disease, has noted that people over 60 can prolong their active life, with better emotional stability and mental acuity, if they would limit the sodium content to 100 to 200 milligrams per 2000 calories. This is equivalent to a maximum of 220 to 300 milligrams (about 1/150 to 1/100).

ounce) of salt in the average day's food (the 220 mg, figure for women).

It is especially important not to habituate a young child to eating salty foods (e.g., salt pickles, potato chips, salted peanuts, salt meats and fish, pretzels, salted crackers). Children should not get into the habit of adding salt to foods at the table, for food habits acquired in infancy and childhood tend to last throughout a lifetime and thus may have a definite effect on health in later years and on longevity.

Restaurants often oversalt foods

The widespread restaurant practice of salting foods excessively in the kitchen goes with poor and mediocre cookery. A good chef exercises great restraint in the use of salt and of all condiments, for he knows that excellent foods can be spoiled by overuse of extraneous flavors. The taste of good steak properly broiled will suffice for any epicure without the need to overwhelm it with salt, pepper, catsup, barbecue sauce, or Worcestershire sauce. The famous chef and epicure, Henri Charpentier, advised chefs not to salt ANYTHING until it was finished; he said that "salt destroys the feel of the meat if it goes on during cooking."

Ways to avoid excessive salt

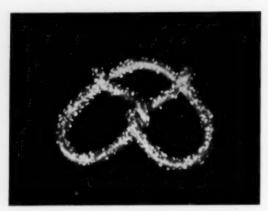
Elderly persons and persons coming from families having a tendency to diseases of the heart or circulation should particularly avoid a high intake of salt (or of foods high in sodium) with their meals.

There are so many ways in which one can unintentionally consume excessive amounts of salt, especially in eating in restaurants, that it is worth while to give attention to means of avoidance. Soup is commonly oversalted, and very often the bouillons and consommés in restaurants are not made in the old-fashioned way but with readymade mixes, cubes, and "essences," which are grossly high in salt (in fact, in bouillon cubes, so-called, salt is commonly the principal ingredient).

If you do not want your steak or hamburger salted in the kitchen, you will have to say so, for in some restaurants meats are very commonly salted heavily—and sometimes peppered, too—before they are broiled or otherwise cooked.

If your medical adviser has restricted your salt intake

Where one is under medical advice to keep salt intake low, one should aim to avoid foods that are canned or packaged with monosodium glutamate. (Its presence is required to be disclosed on the label of packaged foods shipped in interstate commerce.) It is well even to avoid unprescribed medicines, for a great many common medicines contain a high proportion of sodium.



Grossly oversalted pretzels, crackers, nuts, and cocktail delicacies are examples of foods through which modern man consumes many times as much salt as his body needs and can use without harm to health.

For persons on a sodium-restricted diet under medical care in certain common heart and kidney diseases and in cirrhosis of the liver, it is necessary to be continually vigilant to prevent undesired intake of this food element.

For a person with certain circulatory diseases, the difference between salty foods and nearly salt-free foods may be that between survival and death. There is a Low Sodium Cookbook, by Alma Smith Payne and Dorothy Callahan (published in 1953 by Little, Brown and Co.), which can be recommended to those persons whose physicians advise them to go lightly on salt.*

This book gives much weight to the use of herbs and greens to help make a low-salt diet palatable. Since some herbs contain sodium, some persons may need to restrict the use of herbs for flavoring to a few that are known to have a low sodium content; these the authors give as basil, marjoram, rosemary, sage, and thyme. Payne and Callahan and other authors recommend also such herbs as bay, caraway, chives, dill, onions, small amounts of pepper and paprika (in the absence of kidney trouble), and savory. Celery flakes and seeds, parsley flakes, and "vegetable salts" are to be avoided, in a low-salt diet.

Some foods that are relatively low in sodium are potatoes (not chips or canned), macaroni, spaghetti, rice (not rice flakes), corn (not corn flakes), cranberries, prunes, plums, honey, jams, white sugar, some candies (not candy bars), tea, and coffee.

Many persons with cardio-vascular-renal dis-

eases, including hypertension and edema, must regard salt as a poison, the intake of which must be kept under strict control under close medical supervision. Special dietary foods, bread, milk and milk powder, cheese, canned vegetables and soups, baking powder, formulated to have a low sodium content, are now available in large city markets. Unfortunately, one cannot assume that the labels on such foods are 100 percent reliable as to sodium content, for many are mislabeled, and the Food and Drug Administration has proceeded against a number of companies that have misrepresented the salt content of their dietetic foods, including soup mixes, canned beets, spinach. and applesauce. (The labels of such foods are required to state the sodium content in milligrams per 100 grams of food and per average serving.)

Sodium-free and salt-free are not synonymous. Salt is sodium chloride, but there are other sodium compounds that must be avoided also, including those present in baking powder, baking soda, disodium phosphate, monosodium glutamate, sodium benzoate, sodium alginate, sodium sulfite, sodium hydroxide, and sodium propionate. All of these are in common use as additives in packaged foods (Read the labels!) or are used at some stage in processing them; two or three of them, of course, are used at times, but in a limited way, in cookery in the home.

The person who must maintain a really low salt intake, under medical advice, may follow the principle of not adding salt in food preparation or at the table and may wisely avoid the following foods: canned vegetables-unless canned without salt; canned and frozen peas, and lima beans; fresh beets, and celery; flour mixes; relishes; canned meats—except special low-sodium canned meats; canned fish-except when labeled as low in sodium; cheese-except low-sodium types; canned soups and bouillons: smoked salt-processed and preserved meat including bacon, ham, luncheon meats, corned beef, frankfurters, etc. "Quick cooking" cereals are likely to contain a sodium compound, but many other cereals, of course, are permissible (except the flakes and other highly processed packaged cereals-Read the labels!). Butter used should be of the unsalted kind.

Salt gets into many canned and processed foods without the consumer's being aware of the fact. Salt is added directly to many foods in canning, and salt water is often used as a rinse preparatory to canning, or it may be used as a means of separating peas and lima beans for quality (by flotation) in the canning factory or the freezing plant. Certain frozen or canned fruits to which a sodium compound has been added are also to be avoided (Read the labels carefully!). Anyone, whether

Readers who wish to use lemon juice as a flavoring material, as recommended by the Payne-Callahan book, and especially in its low-priced "Special Sunkist Edition," should bear in mind that the juice should be used with a degree of restraint. Lemon has disadvantages if used in any substantial quantities as a food material, because of its acid which has been found detrimental to the teeth in some persons, and may, in some instances, cause canker sores inside the cheek near the lips.

or not on a low-salt diet, does well to go slow in the use of highly salted foods, such as potato chips, pretzels, popcorn, sardines, clams, olives, pickles prepared in brine, most kinds of cheese and all process cheeses, frozen fish fillets, caviar, salted nuts, and various prepared salts and sauces meant to be applied in the broiling or barbecuing of meats.

The patient on a low-salt diet must avoid foods prepared with baking powder, and prepared "mixes" (such as those for cookies, cakes, waffles, etc.), must eschew pain-relieving drugs, which frequently contain large amounts of sodium, except as ordered by the doctor. Chemically softened water should not be used for cooking or drinking. (The harder the original water, the higher will be the salt content of the softened water.) Bakers' bread is very commonly oversalted, in efforts to overcome the tendency of today's commercial bread to be more or less tasteless and characterless. (The same applies to many commercially packaged and canned foods.)

The amount of salt in meat alone need not be a cause for concern by persons not closely restricted as to salt intake, so long as salt is not added. 1000 calories of meat, which is equivalent to about one pound of lean meat, would account for only about ½ gram of sodium (equivalent to 0.8 gram of salt) or 1/5 the maximum allowance

suggested by Dr. Dahl.

A useful table of the salt content of the various foods will be found in "Nutrition and Diet in Health and Disease," by Drs. James S. McLester and William J. Darby (1952, W. B. Saunders Company, Philadelphia, Pa.). (A new edition is to appear in 1960.) This book also includes a 11/2-page table showing the salt content in public water supplies, which is high in a number of places, including Biloxi, Miss.; Galesburg, Ill.; Marion, Ohio; Minot, N. Dak. Tap water in such cities can contribute large amounts of sodium to the sodium-restricted diet. The same book includes a diet list of foods which are low in salt, and foods that are to be avoided by those on a sodium-free diet. Proudfit and Robinson's "Nutrition and Diet Therapy" (1957, Macmillan) gives a 4-page table showing the sodium content of foods, with a number of very useful footnotes.

Salt in hot weather

Doubtless much harm has been done by the recommendation often seen in print that extra salt should be given people in hot weather. Children, for example, do not need additional salt in summer, as some have supposed, and as to adults, the need for extra salt will be very rare and apply only to adults under "conditions of great physical

activity associated with extremely large outputs of sweat." This means work in steel mills and foundries and at other hot and arduous tasks, not persons who live, as the very large majority of Americans do, without vigorous exercise during hot weather and far from the heat and hard physical work of metal-working or other heat-producing industries.

Employers should not install salt-dispensing machines on their property without first checking with a qualified medical man. Employers might even be open to legal liability in cases where an excessive use of salt by employes was shown to have aggravated pre-existing physical ailments.

Salt substitutes

Some years ago, seven persons were poisoned and died through the consumption of proprietary salt substitutes containing lithium chloride which at that time was a recognized and accepted salt substitute. Federal and state agencies concerned with drug control and with public health did not suspect that it might be dangerous to health. In view of this experience, it is important not to adopt any salt substitute which does not have a well-established record of safety under all the circumstances of use, including the general state of health of the person concerned.

One can usually learn without very great difficulty to do without the salt flavor, but a salt substitute should not be used except on the advice of a physician, and the choice of brand should be his. Of the numerous salt substitutes on the market, the most useful ones are said to be those containing various combinations of potassium glutamate, glutamic acid, and potassium chloride. Any of these, as noted, should be used only under the direction of a well-qualified physician. Some well-known proprietary salt substitutes are: Co-

Salt, Neocurtasal, and Diasal.

It is best not to assume that salt substitutes can be employed as freely as might be desired; there is doubt to the safety of using any of these in the presence of cardio-vascular-renal disease.

Concluding note

All who read this article should note that while a general reduction in salt intake is considered desirable for people in general, all who have reason to be on a severely restricted salt diet should seek and closely follow the instructions of their personal physicians (since in cases where illness is involved, either too much or too little can do harm, depending upon the nature and seriousness of the person's illness). Your doctor is the one to judge the right salt intake for you, if you have any ailment that might be adversely affected by a change in the amount of salt used.

Three low-priced opera glasses

One good value at a low price, and two products easily done without

OPERA GLASSES can add much to the pleasure of attending plays, musical comedies, the opera, sporting events, the circus, particularly for the many who are seated relatively far from the stage or ring, including those who cannot afford or choose not to pay today's astronomically high charges for close-up locations. Fairly low magnification, about 2 to 4 times, is adequate for opera glasses. Too high a power is in fact undesirable for watching stage performances as the field of view is necessarily more restricted, and great steadiness in holding the glass becomes important at high magnifications. Prism binoculars with a fairly low magnification, say up to 6, will, however, be serviceable for many public performances, particularly when the viewer is two or three hundred feet or more from the scene to be observed.

Mail-order firms of the sort that advertise lowgrade merchandise in highly extravagant terms and offer "bargains" (that very often turn out to be worthless or nearly so) seem to find optical instruments a particularly profitable field. Telescopes, projectors, "binoculars," and opera glasses (including a kind with earpieces, to be worn like eyeglasses) are among their frequent offerings.

Consumers' Research secured two low-priced glasses by mail order, on the basis of advertisements reproduced here.

The Empress glasses supplied by Novel Mfg. Co., though claimed to give "clear, sharp images" (Figure 2), had optical qualities as poor as any we can remember ever seeing. Regardless of the setting of the focusing adjustment, images were blurred and distorted and had pronounced color fringes. The "hi power," was about $2\frac{1}{4}x$ (which is actually a low power, though perhaps enough for opera glasses; $2\frac{1}{4}x$ is surely not high or even "hi"). The case, of brittle, fragile plastic material colored pink and green, was "larger

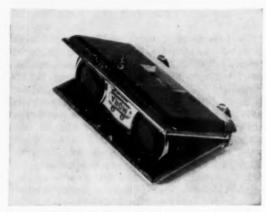


Figure 1—The Mora opera glass. Other Japanese-made glasses of almost identical appearance but different names are also sold. Quality varies, even among those of the same brand, and the buyer should make a personal selection by trying several samples for sharpness of images and absence of color fringes when observing both near and distant objects.

than a package of cigarettes" (even king size), despite the advertised claim that it was not. This is a minor point, of course, but illustrative of mail-order advertisers' frequent lack of candor about matters they—and the customer too, in this case—can easily check. Not surprisingly, these low-quality glasses were made in Hong Kong, a piece of information conveniently omitted by the ad-writer, possibly because many prospective customers would be likely to know that many low-grade novelties and other cheap manufactured articles sold by drug stores and variety chains are made in Hong Kong, or emerge from Communist China through that port.

Thoresen's Foldaway, Combo-Matic, or Combomatic (the name depends on which ad you read;

FOLDING SPORT AND OPERA GLASSES...\$1.00

HI POWER . . . See Giant Close-upe. Vest pocket edition fails compactly. He larger than a package of tiganethes. Pull power-upe. Dilaterition. Senosit center focusing. Use at football games, hockey matches, theatre, reass, etc. Clear, shorp images. See all the cutton. Similar to Closes, new solling for ex much on \$5.00. Try them for 10 days with-test risk. Maney Stack Governates. Sorry. No C.O.D.'s. Send only \$1.00. Add 25c for

NOVEL MFG. CO., DEPT SO-2924, 33 SECOND AVE., NEW YORK 3, N. Y.

Figure 2—The low-quality Empress opera glass was obtained by answering this advertisement which appeared in a weekly magazine. The claims of "HI POWER," "Giant Close-ups," "No larger than a package of cigarettes," "no Distortion," and "Clear, sharp images" were not fulfilled.



Figure 3—This advertisement is reproduced from a catalog issued by Thoresen, Inc. The product shown, with variations in name and price, has been offered from time to time on the Sunday mail-order pages of The New York Times and the New York Herald Tribune.

on the box it's called simply "Folding Opera Glass with Compass") is based upon a fairly clever idea, but the construction is so poor as to make the instrument almost useless as an opera glass. The hinged lens holders unfortunately did not "snap open," as advertised. The hinges were so loose that the lenses were not held in their correct positions, in alignment for viewing.

In order to be able to look through the *Combomatic* folding opera glass, we fixed the lenses in their proper positions by an arrangement of wooden strips and rubber bands. Magnification was found to be about 13/4x, which is on the low side even for opera glasses. Optical quality was distinctly better than that of the *Empress* glasses; in fact, if it had been possible to get the glasses lined up properly without use of the jury-rig of rubber bands and wooden sticks, these glasses might have been considered adequate for some limited uses.

By omitting quantilative data, ads for the Combomatic encourage the reader to assume that the device would perform well when functioning as each of the instruments named, at a magnification ordinarily expected of such an instrument. Claims that the device would serve as binoculars or telescope were perhaps true if the words are construed broadly, but as either a binocular or telescope the Combomatic would perform in a manner far short of what persons used to good instruments of both kinds might reasonably expect. In fact, when functioning as a telescope, the Combomatic would be used in precisely the same way as when employed as an opera glass

(except that one could close one eye or fold up one set of lenses to make it a "telescope"). The magnification would be the same for all three uses, about 1¾ times, much less than ordinarily expected from telescopes and binoculars. Binoculars commonly have a power of 5 or 6 or more, and telescope magnifications, of course, go up to much higher values.

There was a small mirror, which became a magnifying reflector when one objective lens was folded over it. With this one could examine one's eye or nose closely, if desired. A cheaply constructed but usable compass was a built-in feature. This could be used as the basis of a "sun dial watch," as can any compass if one knows how, but no instructions were included for this or any of the other uses claimed for this allegedly so versatile instrument. The claim that Combomatic was a "laryngoscope" seemed quite unwarranted, though of course any magnifier or mirror might be used to look at the throat. The physicians' laryngoscope is an entirely different sort of instrument.

That eminently usable opera glasses of tolerable optical quality can be obtained at relatively low prices was discovered by a shopper for Consumers' Research who came across a surprisingly good instrument at \$2.15, including taxes, at a novelty shop in New York City, and indeed in the expensive Fifth Ave. shopping district. It was Japanese-made and bore the brand name Mora. One instrument selected from among several offered was quite satisfactory, and a really fine value for the money compared with the crudely built Empress or the Combomatic. Consumers' Research is not inclined to recommend that any-



Figure 4—The Combomatic with the wooden strips which were used to hold the lenses in alignment during tests by Consumers' Research. Without these "splints," the lenses would not stay in their proper positions for use.

one order *Mora* opera glasses by mail, but one who finds them in a shop may get a good buy if he looks over several and uses care in selection to try the focus for near (say 40 feet) and far objects.

The Mora glass was of the same general folding design as the Empress, but the Mora was nicely constructed of steel covered with leather or imitation leather, rather than of flimsy plastic. The Mora had a magnification of about 2x. The images were adequately clear and sharp for use of the device as an opera glass.

All three of the glasses discussed here had the disadvantage that the eyepieces did not extend out far enough. Thus each of the instruments was held against the bridge of the nose, which would be uncomfortable for some, though perhaps not unduly so for occasional or intermittent use.

B. Intermediate

Mora (Made in Japan; manufacturer not known) \$2.15 including taxes. A selected sample was very satisfactory, and good value at its price.

C. Not Recommended

Combomatic (or Combo-Matic or Poldaway), Cat. No. 93 (Made in Western Germany; distributed by Thoresen, Inc., 585 Water St., New York 2) 88c, postpaid (sometimes advertised for 99c). Hinges were loose and thus lenses did not stay in position as they should. This device did not function nearly as well as one might reasonably expect of any instrument claimed to have the virtues of binoculars, telescope, laryngoscope, sun dial, and several other instruments.

Empress (Made in Hong Kong; distributed by Novel Mfg. Co., 33 Second Ave., New York 3) \$1.25, postpaid. Low-grade plastic lenses were mounted in a brittle case of molded plastic.

Dangers of new chemicals in the human environment

A BRIEF NOTE in the Journal of the American Medical Association for April 11, 1959, calls attention to the dangers in the "production of chemical substances outside biologic experiences," substances which may penetrate the protective barriers that normally keep the internal organs of the body from contact with chemical substances capable of causing mutations. (Mutations are evolutionary changes in body structure and functioning, tending to poor eyesight, poor hearing, greater susceptibility to cancer in the next generations; such changes are usually in an unfavorable direction and are irreversible, and inheritable.)

The author cited, Dr. M. Burnet, writing in the South African Practitioner, refers to ionizing radiation as the most important cause, but says "other agents must be at work," of which one important evidence is the increasing occurrence of leukemia (a blood disease, a kind of cancer, that is almost always fatal). [The ionizing radiation referred to includes X-rays, cosmic rays, nuclear explosion fallout, radiation from radiumdial watches, etc.] As Dr. Burnet remarks, this development raises the lurking fear that whatever it is that is causing the rapidly and steadily growing number of leukemia cases (at all ages, in countries with high standards of living) may also be breaking through the barriers that in the past have protected the germ cells from agents in our environment that can cause biological mutations. He concludes that exposure to physical and chemical agents capable of causing mutations should be reduced as far as possible. "On the chemical side," which obviously includes the thousand or so additives introduced into the food supply and other thousands in the environment of air for breathing and water for drinking and cooking, "a beginning has hardly been made."

Dr. Burnet's paper is on leukemia—a disease which is increasing in importance. Each year there are 11,000 new cases in the United States. There are a great number of cases of cancer among children, and many will be surprised to know that cancer takes a greater number of lives among children from 4 to 14 in the U.S. than any other disease (one out of every four deaths from disease within these ages). Cancer deaths in children number now nearly 50 percent more than a decade ago, and half of these deaths are due to the form of cancer known as leukemia.

There is no certainty, of course, that leukemia and childhood cancer are directly related to the chemical modification of food and drink and the turning of them, thereby, into unnatural substances, but Dr. Burnet's studies, and those of others, make it unmistakably plain that chemical changes in our human environment must be made with the full realization that "chemical substances outside biological experiences" must be produced and used with the most extreme caution. Else, as a former federal food official put it, we may be turning up with formulas that should bear the warning "skull and crossbones."

It seems quite possible that if there is no threshold for the harmful effects of radiation, so that any amount at all produces unfavorable results on the human organism, the same may be true of some of the many thousands of chemicals that we are introducing into our food and water supplies.

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Exercising and reducing machines

(The beginning of this article is on page 17)

devices as entertainment or amusement and your budget allows so large an entertainment item in the amount to be spent for being jiggled, jarred, or electrified, you can perhaps justify the outlay under this heading. The thrifty-minded should bear in mind the fact that none of the pills, potions, and devices is effective as a weight reducer; the only method that works is to cut down on the food

that is eaten and the soft and hard drinks that are drunk. Posture may be improved, tension eased, and the waistline contracted by real exercise (which anyone can get by walking, swimming, canoeing, or bicycling), but remember that actual reducing can only be accomplished by cutting down the amount you eat and drink, *not* by increasing the amount you spend.

Real old-fashioned peanut butter it's better for you

(The beginning of this article is on page 2)

ternative to adding hydrogenated oil, as the peanuts are being ground into butter, it is commercial practice to add small amounts of ground raw peanuts, sucrose, dextrose, dried milk, defatted soya flour, raisins, oat flour, starch, or malted milk, to hold the oil in the mix. The simple technique of dealing with the oil separation problem used by the experienced housewife in earlier days was simply to invert the jar on the pantry shelf.

Although the separation of oil from the peanut mass has been eliminated by using stabilizers such as hydrogenated oils, such additions do not appreciably retard the development of rancidity, according to a study by the U.S. Department of Agriculture. Research indicated an appreciable lowering of quality in peanut butter following three months' storage as revealed by chemical tests, although no change was detected by taste tests.

Peanut butter fanciers have complained bitterly that the current product distributed nationally under well-known labels lacks the full-bodied flavor of freshly ground peanut butter in which the oil is not modified. In some large city markets, it is still possible to buy peanut butter ground to order that has a fresh, rich flavor, but many do not have access to such superior markets. Those who have electric food "blenders" can make their own from roasted peanuts, sometimes with the addition of peanut oil to improve the consistency, with or without the addition of salt.

Although there are government grades for peanuts, there are no standards of quality for peanut butter. The need for such standards recently became apparent when a product appeared on the market called Jif "the New Peanut Butter," of which the ingredients, according to its label, were roasted peanuts, hydrogenated vegetable oils, honey, corn syrup, dextrose, salt, and artificial flavor. This was indeed something new in edible products, but hardly peanut butter. As the Commissioner of the Federal Food and Drug Administration, George P. Larrick, cautiously noted, it was doubtful if this new product was what would generally be considered by the consumer or the trade to be peanut butter. In a speech before the Peanut Butter Manufacturers Association, he commented that his Department was "faced now with a situation that in our opinion can readily mislead the consumer to his detriment. If manufacturers are to be permitted to substitute 20 or 25 percent cheaper vegetable oils for more expensive peanuts and call the product peanut butter, then the housewife needs the safeguards provided by the food standards section of the Food, Drug, and Cosmetics Act."

The comment apparently had some effect, for an obscure little item in a food trade journal reported that Procter & Gamble was changing the designation of Jif from "just peanut butter [sic] to peanut butter spread" on the ground that this item had always been a "distinctive product." Some peanut butter fanciers may take issue with the view that there is anything "distinctive" in the favorable sense about this product.

This past July, the Food and Drug Administration proposed a new food standard for peanut butter in view of the fact that a survey had disclosed that the amount of peanuts used in some brands had been reduced as much as 20 percent by the substitution of cheaper vegetable oils or hydrogenated oils for the more expensive peanuts and peanut oil. The standard would provide that peanut butter would consist of at least 95 percent by weight of the food made by grinding shelled, roasted, and blanched peanuts. No more than 5 percent of the product would be provided by one or more optional ingredients, including salt, sugar, dextrose, honey, or hydrogenated or partially hydrogenated peanut oil. The proposed standard would require a listing of optional ingredients on the label by their common names.

Although good old-fashioned peanut butter can be considered a desirable product for its excellent flavor alone, there are some nutritional aspects to consider. Hydrogenated oils have been held responsible by an increasing number of researchers for contributing to the fat-like deposits in the arteries that are in part a factor in the increasing rate of death and disability due to coronary disease or atherosclerosis. Particularly to be avoided is any large amount of fat at any one meal, since fats affect the clotting power of the blood and many a fatal thrombosis (formation of a clot within the heart or blood vessels) occurs some hours after a large fatty meal. Four researchers on problems of atherosclerosis, which they call the No. 1 public health problem, writing in California Medicine, September 1958, said that "The evidence now appears to be conclusive that sufficient quantities of polyunsaturated fat in the diet, with proportional decrease in saturated fat, will result in n. jor decrease in blood lipid" (fats and fat-like substances), and they add that there is "some evidence that such blood lipid lowering produces a desirable effect upon existing atherosclerosis."

Peanut butter contains a substantial amount, about 25 percent, of a favorable type of polyunsaturated fatty acid, linoleic acid. Peanut butter that contains no hydrogenated oil is a good source of vegetable oil, and such peanut butter, mixed, if necessary, until the oil disappears, can be pleasantly eaten as an appetizing spread on a stalk of celery.

About a year ago one of our staff came across a brand of old-fashioned peanut butter in a local store. Its brand name and manufacturer were included in The Consumers' Observation Post with the suggestion that subscribers might be interested in sending in the names of other brands that were available in their sections. The response to this note has been amazing, and we are happy that there has been so much interest in the subject. For the benefit of those who have not followed the earlier discussions, we append a list of brands that have been reported by subscribers in various regions. In some cases a brand is available both as peanut butter with hydrogenated oil and as the old-fashioned variety; it will be necessary to read the label first before making a purchase. We shall be glad to continue to receive suggestions from subscribers about other brands that do not contain any hydrogenated oil.

Brands of peanut butter without hydrogenated oil of any kind

- California: Berkeley, Consumers' Cooperative of Berkeley, Inc.
 - Los Angeles, Hain Pure Food Co. Inc.
 - Monterey Park, Laura Scudder's (Scudder Food Products, Inc.)
- Oakland, The Food Mill, 3033 MacArthur Blvd., Oakland 2
- San Francisco, Person's Honey & Nutshop, 1175 Market St., San Francisco 3
- Colorado: Denver, Toner's Peanut Butter (Toner's Inc., Speer Blvd. at Blake)
- Illinois: Chicago, Hazel Old-Fashioned and American Deluxe (National Tea Co., 901 W. Division)
- Iowa: Sioux City, Robb-Ross (Robb Ross Co.) Also available in other western cities.

- Massachusetts: Boston, Overland Dietetic Peanut Butter (S. S. Pierce Co., Boston 17)
 - Cambridge, Kennedy Old-Fashioned (Kennedy & Co., Inc., 30 Rindge Ave. Ext.)
- Michigan: Detroit, Broadway Market (ground while you wait)
 - Grand Rapids, Cream-Nut (dietetic) (Koeze Mfg. Co., 1263 Burton S.W.)
- Minnesota: Duluth, Fairway Old-Fashioned (Fairway Stores, Inc.)
- Duluth, Twin Port Wholesale Grocer Co.
- Minneapolis, Hove's Old Style (Hove Co., Inc.)
 Flavorite Old-Fashioned (Super-Valu chain stores in various Midwestern cities)
- St. Paul, Hove's Old Style (Hove Co., Inc.)
- Missouri: St. Louis, Cousins Coffee & Tea Co., 110 N. Broadway
- New Jersey: Plainfield, Grigsby Nut Kitchen
- New York City: Black & Koenig, 52 Dey St., New York 7
 - Thomas Zarras, 226 Washington St.; New York 7
- North Dakota: Fargo, Fairway Old Fashioned (Fairway Stores, Inc.)
- Ohio: Akron, R. W. Schmacher Coffee, Inc., 64 S. Howard St.
 - Dayton, Frey's (Wm. F. Frey)
 - Cincinnati, Frank's Jumbo Old Fashioned (Frank Tea & Spice Co., 538 E. Fifth St.)
 - Cleveland, Capco (Charles Peterson Co., 917 Carnegie Ave., Cleveland 13)
 - Fishers Old Fashioned (Fisher Brothers)
 - Columbus, Capitol (The Andrus Scofield Co.)
 - Krema Peanut Butter (Krema Pdts. Co., 996 Goodale Blvd.)
- Pennsylvania: New Bethlehem, Kitchen King (H. B. DeViney Co., Inc.)
 - Penn's Creek, Walnut Acres
 - Philadelphia, Parke Old Fashioned (L. H. Parke Co., 7746 Dungan Rd.)
 - Souderton, Landis's Old Fashioned (Harry L. Landis
- Williamsport, W. B. Griggs, 41 E. Third St.
- South Carolina: Greenville, Meadors Old-Timey (Meadors Mfg. Co.)
- Washington: Tacoma, Adams Old-Fashioned (Rex F. Adams Co., 2414 East F St., Tacoma 2)
- Wisconsin: Door County, Red Owl grocery stores Milwaukee, Holsum (Holsum Products, 120 W. Florida St., Milwaukee 1) Also available in Wisconsin, Maryland, Georgia, and Missouri. Roundy's Old-Time (Roundy's, Inc.)

USSR exhibits consumer goods in New York

NEARLY ALL of us have been recipients of Christmas or birthday gifts from children of friends who have been taught at school to make hammered aluminum ash trays, string containers from wax cartons, or tie racks and whisk broom holders from odd pieces of wood or cigar boxes. This handiwork is dutifully acknowledged and kept on display during the holiday season, then quietly disposed of.

Perhaps it was this spirit that moved the sophisticated New York press to lavish praise for the items on view at the USSR Exhibition in the New York Coliseum during July and August, where eager tourists at a dollar a head (50 cents for children) thronged the three floors of exhibits that suggested the Russians were able to produce sputniks, jet planes, microscopes, electronic computers, an atom-powered ice breaker, agricultural machinery including tractor tires, medical and optical instruments. Other displays indicated that the Russians could turn out a variety of consumers' goods including automobiles, cameras, watches, dishes, cut glass, china figurines, fabrics, chocolate, breadstuffs, and canned foods. They also print books, including textbooks. One sign above a display boasted: "In 1965 the USSR will publish 1,600,000,000 books or 7.2 per person."

The Russians also displayed radio sets and television sets of their own make and put on a demonstration of stereo reproduction of music at regular intervals. At starting time for a performance in the late afternoon the second day of the exhibition, the "listening room" was jammed to the doors, but after several records were played, the standing crowd evaporated. One woman said, in a disappointed tone on her way out, "That wasn't stereo."

The much advertised model apartment designed to show typical living quarters of a skilled factory worker or a doctor, according to the "Interior Architect" in charge of the section, was about the quality to be found in a second-grade motel in the United States, austere, utilitarian, adequate, but there was nothing in its decor or furnishings that a woman visiting the exhibition would want to copy in her own home.

The most attractive displays from a consumer's standpoint were the hand-woven cotton and linen textiles with the colorful red or multi-color borders that have been characteristic of peasant handicraft for decades. Even the sheaves of grain that were on display in the agricultural section were

tied with beautiful hand-woven sashes of white and red. The textiles and clothing on view were conservative and functional, but were unlikely to afford serious competition to the textiles or fashions of either Italy and France that are much in demand in this country, or to those of Japan which is supplying cotton textiles and garments at prices considerably below similar U.S. products (not to mention the excellent, finely-finished Japanese cameras, binoculars, sewing machines, and loud-speakers, radios, and other electronic products that find a ready market in the U.S.).

The rugs on display would hardly arouse an intense desire to place an order with the attendant, even if it could have been done. This is somewhat surprising considering the proximity of Russia to the Oriental rug sources from which America imports a great many rugs. The raw furs were, of course, beautiful, but the fur coats would probably not interest the New York buyer unless she could buy them at prices well below the U.S. market. Along with the beautiful handwoven cottons and linens, there were colorful shawls, tole trays, and the vivid red, black, and gold lacquerwork of vases and bowls and dollswithin-dolls that have been imported from that part of the world for decades.

Big-lettered placards at strategic intervals emphasized USSR progress, like the one reading: "The real wage of the industrial and office worker in the USSR in 1958 was nearly double 1940." But there were no prices on any of the products shown. To Americans, used to appraising products in terms of dollars and cents, this was disappointing. Except for jewels and objects of art, the American consumer evaluates nearly everything salable, especially all mass-production items, in terms of its price tag. Certainly there was little on view at the Soviet Exhibition in the way of consumer goods that could be admired for its fine workmanship, high skill in design or execution, finish, or artistic execution except the peasant handicraft and textiles. Thus the display was meaningless in terms of productive capacity, unless the USSR was trying to show that it too could turn out products like those produced in countries operating on the basis of private enterprise industrial systems. As a matter of fact, it was somewhat surprising that the Russians had the courage to put most of the items on display. Certainly in the consumer field, the visitor could

see much more attractive dishes, textiles, furs,

watches, rugs, and clothing at a big New York department store like R. H. Macy & Co.; better finished cameras, microscopes and other optical goods, television and radio sets at stores specializing in such items, like Willoughby's, E. B. Meyrowitz, Inc., Harvey Radio Co., Liberty Music Shops, and similar shops in other large cities.

Perhaps the novelty that drew the sightseers was that such an extensive array of products could actually be turned out by workers in a country that is committed to the principles of state capitalism or socialism. The exhibit received first-rate publicity, but that job was handled by an American public relations firm. Variety, the trade journal of show business, gave a "rave" account of the exhibition, calling it "a great show," referring to the displays as "compelling" and extolling the techniques of presentation with extravagant praise. It is not of record that the reporter could qualify as an expert on the quality of the musical and cinematic reproductions which he reported were excellent, or of the hi-fi and stereo gadgets which he called "sleek," making no reference to their technical perform-

In this connection it is interesting to note that another of Variety's reporters in reviewing the Soviet's Kinopanorama film that was part of the exhibit commented that it was astonishing that the Soviets would "risk their Kinopanorama

process on Broadway. They may have been ahead with the sputniks. They're certainly behind when it comes to wide screen." Specifically, he found that the three panels of the film were divided by very prominent matchlines, and the images did not always match; there was a great deal of distortion on both sides; and color in the three panels rarely matched, so that a river would be blue on the left, almost black in the middle, and dirty gray on the right. He concluded with the observation: "It remains a puzzle why the Soviets would present such a technically inferior product to Americans whom they are trying to impress with the very opposite. 'Great is My Country' is hard on the eyes. . .and it tends to be static. . . . It is a curiosity item because it was made in the Soviet Union.'

Perhaps this comment might well be applied to many other items in the exhibit. They were impressive only because they could be turned out at all in a country whose economic system can match the output of the Western World only when it copies and uses Western methods. The surprising thing was that such a country would put on view so many products that were obviously inferior in appearance and workmanship to those readily available in scores of New York stores. Perhaps the managers of the USSR's industrial system really believe the claims of their own propaganda agencies.

Making good photographic slides

THERE has been a continuing argument among amateur photographers on the proper method of mounting photographic slides for projection. Many persons prefer the metal slide mounts, principally because of their convenience and the time and trouble they save in mounting transparencies. Others prefer binding slides in glass with a suitable kind of binding tape. This method appears to be the preferred method of experts in the photographic field who send slides for exhibition purposes. One such expert, a member of the Photographic Society of America, has recently made some suggestions about binding slides that consumers will find of interest.

Burdette E. White, writing in the January 1959 PSA Journal, notes that if a slide is worth making at all, it is certainly worth a little effort and expense to do the binding right. An unbound slide is in constant danger of being ruined by dirt and abrasion, and some methods of binding slides are definitely mediocre or bad.

Mr. White's article lists five objectionable features of common but unsatisfactory slide bindings.

1. Sticky binding tape. The gum bleeding from this will cause dirt to stick to glasses, often

completely spoiling the effect of the picture when it is projected.

Oversized bindings. These tend to jam in projectors or fail to fit into standard size slide trays.

Off-center cropping. This reflects careless technique; may spoil the effect.

4. Lost labels. Gummed labels tend to come off metal bindings and cause confusion and delay. Self-adhesive tape of the kind that does not bleed adhesive will attach the labels securely.

Multiple thumb-spots. If the mark is improperly placed or two or more choices appear, the slide may be projected in an inverted position.

Although Mr. White's paper had to do with the preparation of slides for professional exhibitions, the consumer who wants the pictures of his trip to be seen to the best advantage by an audience of family or friends will find his suggestions well worth following.

Two tapes that Mr. White has found to be satisfactory for binding slides are the non-bleeding No. 750 Acetate Fiber and No. 850 Polyester Film; both are manufactured by Minnesota Mining & Mfg. Co. of St. Paul 6.

Please Note: Stereo records are indicated by the symbol (8).

pretation, second to the fidelity of the recording.

Beethoven: Sonalas Nos. 18 and 21. Rubinstein (piano). RCA Victor LM 2311. \$4.98. The "Waldstein" is the more popular, but Rubinstein ripples both of them off with extraordinary skill and depth of feeling. Very well recorded.

Blitzstein: Regina. Lewis, Carron, Brice, Hecht, etc., under Krachmalnick. 6 sides, Columbia O3L 260. \$14.96. Regina ranks high among American operas with performances in New York City by this cast this Spring. The opera holds my interest throughout. The chief character in this ugly tale set in Alabama in 1900 is Regina Giddens, sung well though harshly at times by Brenda Lewis. Some of the lesser characters sing so-so, with the exception of Elizabeth Carron as Birdie who is first rate. At no time do I find fault with the conducting. Satisfactorily recorded. The stereo recording is slightly fuller.

(SBrahms: Lieder. Fischer-Dieskau (tenor). Decca 712007. \$4.95. The most familiar Brahms songs are not here, but the artistry of a first rate lieder singer is here. And he is marvelously recorded.

(§Granados: Goyescas. Rubio, Iriarte, Torrano, Ausensi, etc., under Argenta. London OSA 1101. \$5.98. Charming opera which Granados developed from his set of piano pieces inspired by his studies of Goya paintings. The dark-hued voice of Consuela Rubio sounds magnificent. The rest of the cast is colorful, thoroughly Spanish. Excellent conducting. The sound places the singers a little farther forward than I like for they cover some of the orchestral detail. In other respects it is good. AA A

(S) Lalo: Piano Concerto & Franck: Symphonic Variations. Orazio Frugoni (piano) with the Orchestra of the Wiener Volksoper under Gielen. Vox STPL 511220. \$5.95. Though Lalo was one of France's foremost composers, his piano concerto does not challenge the genius evident in the great Franck Variations overside. The performances are solid, fairly imaginative, but never breathtaking. Good recording.

(SLehar: The Merry Widow. Gueden, Grunden, Kmentt, Loose, Donch, etc., under Stolz. 4 sides, London OSA 1205. \$13.96. The overture which was arranged by Stolz for this recording seems too long and too fancy but once that point has been passed—it's heavenly sailing! What a score! What performers! What recording—it even reveals the scarcity of first violins! What conducting, by a gentleman who helped prepare the world premiere and has conducted it over 500 times since! Nearly everybody is likely to enjoy this set which was recorded in Vienna.

(§) Puccini: Madame Butterfly. Tebaldi, Bergonzi, etc., under Serafin. 8 sides, London OSA 1406. \$23.92. Easily the best recorded Butterfly. The illusion of breadth and depth is extraordinary. You can point to the location of the singers. Tebaldi's voice sounds mature for the young, Act I Butterfly, and her Entrance music lacks ease of execution. But this great soprano's Act II (three years and much trouble later) bows to no one. Bergonzi sings well (as he does in his new Operatic Recital on London Stereo OS 25075). The other performers fit their roles, and Serafin's conducting is top notch. Overall, not perfect, but what long operatic performance is?

Strauss: Till Eulenspiegel, Don Juan, and Dance of the Seven Veils. Stadium Symphony under Stokowski. Everest LPBR 6023. \$3.98. Just about the most popular Richard Strauss orchestral music. Stokowski conducts with drama and breadth. His men, drawn from the N. Y. Philharmonic, play like the experienced musicians New Yorkers know them to be. Transparent, superb mono recording.

(8)Tchaikovsky: Romeo and Juliet, and The Nutcracker Suite. Virtuoso Symphony of London under Wallenstein. Audio Fidelity FCS 50,006. \$6.95. TchaiRatings (AA, A, B, etc.) apply first to the quality of interkovsky standards played by an especially assembled British orchestra. The conducting emphasizes the broad,

lyric line rather than intricate nuance. At times the Nutcracker sounds less ebullient than usual but Romeo is vital, durable. Spacious recording with pleasing separation of channels.

(a) Tchaikovsky: Swan Lake Ballet Synopsis. Utah Symphony under Abravanel. Westminster WST 14064.

\$5.98. Surely this is one of the best disks this orchestra has turned out. Abravanel conducted ballet in Paris and he never forgets the importance of the steady rhythm.

Robustly recorded. And the music ranks high in the Tchaikovsky catalog. **MA AA SWagner:** Prelude and Good Friday Spell from Parsifal, Siegfried Idyll, Prelude to Die Meistersinger. Pittsburgh Symphony under Steinberg. Capitol SP 8368. \$5.98. Staples in the Wagnerian concert repertory. The music fairly glows. Refined, convincing performance. The recording clearly separates the brass on the right, the first violins on the left, and the other instruments in the center, but there is a constriction of tone that is not present in the left starters.

Dancing in High Society. Ben Ludlow and His Orchestra. Vanguard VRS 9044. \$4.98. What differentiates this potpourri from most are the contrasts in volume and instrumentation. Altogether 37 numbers including "The Lady is a Tramp," "I Talk to the Trees," "Keep It Gay," "When the Saints Go Marching," etc. Well played and recorded, though the orchestra seems rather far off. The stereo disk is a little fuller in sound. AA A

(S) Four Italian Sonatas. Milstein (violin) with Pommers (piano). Capitol SP 8481. \$5.98. Milstein rarely disappoints as a musician and technician. He is in fine fettle here, probing deeply into rich old pieces by Tartini, Corelli, Geminiani, Vivaldi. Well partnered by Pommers and well recorded.
AA AA

Gilbert and Sullivan Overtures. Orchestra under Alan Ward. RCA Victor LM 2302. \$4.98. Festive souvenirs to the thousands who have seen and enjoyed "The Mixado," "Iolanthe," "Ruddigore." "H.M.S. Pinafore," "Yeoman of the Guard," "Pirates of Penzance." Straight-

"Yeoman of the cuard, Firates of Felizance. Straightforward playing with clear, close-in recording. AA AA (§) Handel Arias Sung by Richard Lewis (tenor). Capitol SG 7170. \$5.98. Nine arias of which "Where er You Walk" is the most famous. Well sung—and they are not easily tossed off. The orchestra plays around the soloist with strength and nuance. Clean reproduction except for distortion near the label.

distortion near the label.

Musica Flamenca, Vol. 2. Pepe de Almeria and His Ensemble. Epic LC 3566. \$4.98. An attractive disk of Flamenco guitar playing, singing and dancing. Thirteen numbers in all ranging from "Bouleria Flamenca," "Cante Andaluz" to "Recuerdos de Granada" and "Aires Gaditanos." Brilliant recording.

numbers in the number of the control of the control

The Vibe Sound of Peter Appleyard. Audio Fidelity AFLP 1901. \$5.95. Unusual jazz combination featuring three vibraphone players backed by bass and drums. They hammer their way through such standards as "Strike Up the Band," "Avalon," "Satin Doll," "The Blue Room." Expert playing most effectively recorded. AA AA

the Band," "Avalon, "Satin Doil, The Bille Room.

Expert playing most effectively recorded. AA AA AA

BVienna So Gay. Hans Carste and His Orchestra.

Decca DL 78810. \$5.98. Music of Emmerich Kalman which includes orchestral selections from "The Riviera Girl," "The Yankee Princess," "Countess Maritza," etc. Rich, melodic operettas superbly played and richly recorded.

AA AA

Ratings of Current Motion Pictures

THIS SECTION aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Boxofice, Cue, Daily News (N. Y.), The Exhibitor, Films in Review, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, Newswork, New York Herald Tribune, New York Times, The New Yorker, Parents' Magasine, Release of the D. A. R. Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, The Tablet, Time, Variety (weekly).

The figures preceding the title of the picture indicate the number of critics whose judgments of its entertainment values warrant a rating of A (recommended), B (intermediate), or C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line. Descriptive abbreviations are as follows:

adv-adventure

in color (Ansco, Eastman, Technicolor, Trucolor, Warner Color, etc.)

car-curtoon

com-comedy

crime and capture of criminals

doc-documentary

fan-fantasy hist-founded on historical incident

mel-melodrama

may munical

mys—mystery
mor—dramatization of a novel

sci-science fiction

soc-social-problem drama

tras travelogue
war dealing with the lives of people in wartime

western

A	B	C		Α	В	C	
-	_	3	Adultress, The (French)dr A	-		3	Diary of a Bad Girl (French) soc-dr A
1	9	5	Al Capone cri-mel A	8	8	3	Diary of Anne Frank, The war-dr AY
_	1	9	Alaska Passage mel A	_	3	9	Don't Give Up the Ship war-com A
	9	5	Alias Jesse James wes-c AYC		3	,	bon t dive op the snip
_	2	2	Alligator People, The sci-mel A	1	4	5	Eighth Day of the Week, The
3	4	3		*		-	(Polish)dr A
3	7	5	Anatomy of Murder		4	3	Elephant Gun (British) mel-c AY
-		3	Angry Hills, The war-mel A		8	4	Embezzled Heaven (Austrian) dr c AY
1	4	-	Antarctic Crossing (British)doc-c AYC	_	3	-	End of the Road (British) war-dr A
1	8	2	Aparajito (India)dr AY	-	2	1	Eternal Walz, The
-	1	6	Arson for Hirecri-mel AY	_	2	1	
3	12	2	Ask Any Girl				(German) mus-dr-c AYC
	2	2	Pod Ciel (Pelalet)	_	6	3	Face of a Fugitive wes-c AY
-	2	2	Bad Girl (British)dr AY	-	3	1	Face of Fire mel AY
-	3	6	Bandit of Zhobe, The		3		
	-		(British)dr-c AYC	_	4	5	First Man into Space (British) sci AY
Millioni	3	5	Battle Flame, The war-dr A	6	5	2	Five Pennies, The mus-biog-c AY
******	3	6	Beat Generation, Thesoc-dr A	0	1	4	Flesh and Desire (Italian)dr A
	3	-	Beyond this Place (British)dr A	-	7		
1	6	2	Big Circus, The mel-c AYC	******		3	Floods of Fear (British)cri-mel A
-	4	2	Big Fisherman, The hist-dr-c AYC	-	3	-	For the First Timemus-dr-c AYC
-	1	2	Big Operator, The	Autom	5	4	Forbidden Fruit (French)dr A
-	2	2	Blue Denim soc-dr A	***************************************	_	8	Four Skulls of Jonathan Drake,
-	1	2	Blue Peter, The (British) mel A				The
-	2	7	Born Reckless wes-mus A				Class Bahamanah Tha
-	5	2	Born to Be Loved	more	5	5	Giant Behemouth, The
							(British)cri-mel AY
-	2	1	Carlton-Browne of the F. O.	-	2	1	Giant Gila Monster, The sci-mel AY
			(British)com AY	-	8	4	Gidget mus-rom-c A
_	2	1	Cast a Long Shadowwes AY	-	1	4	Gigantis, The Fire Eater sci AY
-	2	4	Cat, The (French)war-mel A	******	4	2	Girls Are Willing, The
-	4	6	Circle, The (British) mys-mel AYC				(Danish)
4	13	1	Compulsion soc-dr A	-	-	3	Girls, Inc soc-dr A
_	2	5	Cosmic Man, The sci AYC	-	(80000)	4	Girls of the Night (French) soc-dr A
-	10	7	Count Your Blessings com-c A	****	3	1	Go, Johnny, Go mus-com AYC
-	7	7	Crime and Punishment, U.S.A dr A	2	3	_	Grand Canyon mus-doc-c AYC
-	8	1	Cry from the Streets, A	*****	1	9	Great St. Louis Bank Robbery,
	C		(British)dr AY				The cri-mel A
	3	2	Curse of the Undead sci-mel A	10000	5	9	Green Mansions
-	3	2			1	3	Grisbi (French)dr A
-	-	3	Daddy-O mel A		6	3	Gunfight at Dodge City, The wes-c AY
-	3	-	Dancing Heart, The	-	1	8	Gunmen from Laredo wes-c AY
			(German)mus-com-c AYC		*	0	Guimen from Lareou
	14	2	Darby O'Gill and the Little	MONTHAL .	-	4	Half Human (Japanese) sci AYC
		-	People fan-c AYC	-	1	3	Handful of Grain, A (India) dr-c A
-	1	2	Date With Death, A mys-mel A	2	9	4	Hanging Tree, The wes-c A
-	î	3	Day of the Outlaw mel A	-	4	5	Hangman, The
_		3	Desert Desperados (Italian) mel A	-	10	_	Happy is the Bride (British)com A
	9		Devil Strikes at Midnight, The		2	1	Harvest Home (German)dr A
	2				3		Have Rocket, Will Travel com AYC
			(German)	-	3		mare Rocket, will fravel

	-	-			-	-	
Α	В	C	TT - 41 - C1 - 4 (Pt - /P-141.4.)	Α	В	C	
_	1		The contract of the contract o	*******	4	2	
-	4			-	1		
-	3		Here Come the Jets war-mel AY	*****	3		A seed of those office opening the contract of the
*	4			-	3		Plunderers of Painted Flatswes A
-	5		Hey Boy, Hey Girl mus-com AYC	2			
-	2			******	11	3	Pork Chop Hill
-	7	5	H-Man, The (Japanese) sci-c A	Militar	3		
2	10		Hole in the Head, A	1	2		Power Among Men propaganda-doc A
-	8	1	Holiday for Lovers mus-dr-c AY	1	3	Manne	Private's Affair, A war-com-c AY
-	5	7	Horrors of the Black Museum . cri-dr-c A				
3	8	1	Horse Soliders, The war-dr-c AYC	2	2		
1	11	2	Hound of the Baskervilles, The	-	2		Rebel Set, The
			(British)mys-c AY	-	2		
pronounce.	2	4	House on the Waterfront, The	-	1	3	
			(French)dr A	1	6	2	
				3	2		remidia man, and (dapanede)
2	7	-	I Was Monty's Double	2	8		
			(British)war-mel AYC	-	2	8	
1	11	6	Imitation of Life soc-dr-c AY	-	_	3	
-	Nome:	8	Invisible Invaders sci AY	-	8	1	Roof, The (Italian)dr AY
-	1	9	Island of Lost Women mel AYC	3	9	4	
-	-	3	Isle of Levant, The doc-c A	-	3	2	Room 43 (British)soc-dr A
2	8	1	It Happened to Jane com-c AYC				
				No.	9	1	Sad Horse, The dr-c AY
3	6	5	John Paul Jones hist-dr-c AYC	-	-	3	
-	1	7	Jonas (German)dr A	1	2	_	Sapphire (British)cri-dr-c A
-	7	1	Juke Box Rhythm mus-com AY	-	10	4	
			The box may than the second se	-	1	2	Say One for Me
-	3	-	Killer Shrews, The sci-mel AY	-	1	3	Secret Place, The (British) cri-mel A
-	4	3	King of the Wild Stallions,	1	12	1	Shaggy Dog, The
			The wes-c AYC	_	7	7	Shake Hands with the Devil war-dr A
			***************************************		_	3	Shameless Sex, The (Italian)dr A
	3	3	Lady Chatterley's Lover (French) dr A	entre.	5	1	Sinners of Paris (French) cri-mel A
2	9	2	Last Train from Gun Hillmel-c A	-	3		Sky Without Stars (German)war-dr A
-	8	2	Law is the Law, The (French) com A		7	3	Smiley Gets a Gun (British) mel-c AYC
-	3	1	Legend of Tom Dooley, The war-dr AY	3	9	6	Some Like It Hot
-	-	3	Little Rascals Variety Show, The .com AY	3	7	2	Son of Robin Hood (British) dr-c AYC
-	1000	8	Little Savage, The adv-c AY	2	10		
-	5	4	Lone Texan wes AY	2		5	Sound and the Fury, The dr-c A
-	-	3	Lonely Sex, The soc-dr A	2	3	-	South Pacific
-	1	3	Look Back in Anger (British)dr A	-	2	6	Speed Crazy mel A
	_	3	Love in the City (Italian)soc-dr A	Acres de	1	5	Street of Shame (Japanese)soc-dr A
_	7	7	Love is My Profession (French) dr A	-	5	1	Submarine Seahawkwar-mel AYC
	,		Dove is my rioression (French)		- 1		T 1. (C)
-	4	12	Man in the Net, The mys-mel AY	1	3	1	Taiga (German)dr A
-	5	-	Man Who Could Cheat Death,	-	1	4	Tank Commandoswar-mel AY
			The cri-mel-c A	1	5	2	Tarzan's Greatest Adventure adv-c AY
_	3	1	Man Who Understood Women,	_	1	5	Teenagers from Outer Spacesci AY
			The	3	8	6	Tempest, The
-	.3	3	Marianne of My Youth (French)dr A	-	1	3	Ten Seconds to Hell war-mel A
-	12	5	Mating Game, The	-	2	1	That Naughty Girl (French) mel-c A
2	10	6	Middle of the Night, Thedr A	1	2	7	Third Sex, The (German)soc-dr A
-	2	3	Milkmaid, The (Finnish) dr A	1	8	4	This Earth is Minedr-c A
	5	2	Miracle of St. Therese, The	-	1	2	Three Men in a Boat (British) com-c A
	-	-	(French)dr AYC	-	-	3	Three Strange Loves (Swedish) soc-dr A
_	5	3	Mirror Has Two Faces, The	1	4	11	Thunder in the Sunwes-mel-c AY
			(French)dr A	-	6	5	Too Many Crooks (British) cri-com A
	8	3	Mistress, The (Japanese)	Access	6	8	Trap, The cri-mel-c AY
-	5	2	Monnti (Corman)				
1	2	2	Monpti (German)	-	7	7	Up Periscope war-mel-c AYC
1	6	_	(French)				
	2	2	(French)		4	4	Verboten!war-dr A
-	2	2	Most wonderful Moment, The	-	5	2	Virtuous Bigamist, The
		2	(Italian)doc-dr A			-	(French)dr-c AY
-		3	Mugger, The cri-mel A				(22000)
-	5	4.4	Mummy, The (British) sci-mel-c AY	3	8	6	Warlockwes-c AY
-		11	Mummy, The (British) sci-mel-c AY Mustang wes AY Mysterians, The (Japanese) sci-c AYC		8	7	Watusi adv-c AYC
-	8	6	Mysterians, The (Japanese)sci-c AYC	-	6	2	Westbound
	6	11		-	5	3	Wild and the Innocent, The wes-c AY
1	5	8	Naked Maja, The dr-c A	2	4	3	Wild Strawberries (Swedish)dr A
-	4	10	Never Steal Anything Small. cri-mel-c A	_	1	9	Woman Eater, The (British) sci AY
-	4	3	Night of the Quarter Moonsoc-dr A	_	7	7	Woman Obsessed
_	4		No Escape (French) dr A	-	2	4	Women Are Weak (French)com A
1	4	2	No Name on the Bullet wes-c A	_	10	8	World, the Flesh, and the
T	7	3	North by Northwest mys-mel-c A		10	0	Devil, The soc-dr AY
6			Nowhere to Go (British)cri-mel AY				Level, The
6	10	1	Nun's Story, The dr-c AY		2		Vallemetone Kelly
_	6	3	Of Love and Lust (Swedish)dr A	-	3	6	Yellowstone Kelly mel-c AY
-		5	Operation Dames war-com A	_	6	3	Young Captives, The mel A
1	3	-	Oregon Trail The				Young Land, The mel-c AY
A	rig.		Oregon Trail, The hist-dr-c AYC	1	11	6	Young Philadelphians, The dr A

The Consumers' Observation Post

(Continued from page 4)

RESTRICTION OF MILK in the diet is called for in certain disease conditions, particularly in elderly people. Dr. Felix O. Kolb, Assistant Clinical Professor of Medicine at the University of California Medical Center, presented a paper earlier this year in which he discussed Paget's disease. In the course of his lecture, he noted that elderly people who are bedridden, paralyzed or who have Paget's disease with fracture necessitating immobilization, have to cope with an excess of calcium in their blood stream and urine. If, in addition to the dumping of calcium from the skeleton, they continue to drink lots of milk, there will be a further increase of calcium in the urine and the result may be calcium kidney stone formation and kidney damage. In some cases calcium excess may even lead to a form of chemical poisoning. An aid to the prevention and treatment of this calcium excess is a low calcium diet, which would exclude milk.

POWER LAWN MOWERS ARE A POPULAR ITEM with suburban homeowners. The price competition is keen, and established manufacturers complain that a mower can be assembled by a mechanic in his garage to sell at a low price. Manufacturers claim that those who are interested in the development of the device must charge higher prices to stay in business. It is predicted that food stores will account for 20 percent of the power mower sales this next season, but the oldtimers are wondering what the supermarkets will do with the servicing problem. They note that a consumer may buy an inexpensive mower the first time, but they report that he usually replaces it with a better and more complicated model, particularly one of the riding type. In spite of the growing number of power lawn mower accidents, however, the manufacturers do not give due weight to the importance of safety features of power mowers in their advertising. The rotary mowers constitute 90 percent of power mowers sold, and they are inherently very hazardous.



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READY-PREPARED FOODS are quite popular with the homemaker. She likes what is called the "built-in maid service" of precooked, frozen, ready-mixes, and prepared-to-eat foods. A study by the U. S. Department of Agriculture suggests that these convenient features do not add an exorbitant amount to the price of the food, since, out of each \$100 spent for groceries, only 61 cents, or less than one cent per dollar, is spent for "built-in maid service." The Department takes the view that the prices of some ready-prepared foods are lower because the added processing gives them longer shelf life, shrinks the bulk, prevents waste, and reduces charges for shipping, handling, and storage. There is some doubt in the mind of informed observers that "longer shelf life" is a desirable feature in food, from the consumer's standpoint. "Durability" may very often be achieved at the cost of losing subtle and important health values in essential foods.

DRUGS HAVE NO PLACE IN COSMETIC PRODUCTS which are sold indiscriminately across the counter. Dr. Stephen Rothman of the University of Chicago, Department of Medicine, told a group of chemists that only a person trained in medicine is in a position to determine the effectiveness and safety of the use of certain drugs. Antibiotics, for example, should not be used routinely, because of the danger of sensitization. Hormones and vitamins supplied in cosmetics have a fixed concentration with no concern for the differences of individual needs. If the concentration is fixed at a low and safe level, the medication may be useless and serve only promotional purposes.

NEW MODELS OF CAMERAS appear so frequently that they seem to come out at the rate of one a week or so. Whether the latest model has any particular advantage over the previous model or the one that came out a few years back is open to question. The veteran photographer can make an examination, try it out on a few shots, and decide for himself whether there is anything to be gained by turning in his older model on a new one. The consumer who is not so expert, however, may be quite unhappy with his current purchase. If he should be so indiscreet as to ask a salesman at some large and busy camera store, he is likely to be overwhelmed by a spiel for the new model, and Heaven help him if he ventures to ask a technical question at a discount house! U.S. Camera recently pointed out that many camera shops have replaced the salesmen who knew something about photog—raphy and photographic equipment with salesmen who are skilled in the art of selling anything. The result is that the uninformed customer is likely to have something unloaded on him that may not be nearly so effective in producing satisfactory results as the older camera he has been using.

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Food freezer plans good or bad?

BY J. D. BROMLEY, Consumer Education Specialist Agricultural Extension Service, Univ. of Rhode Island

THE doorbell rings. You answer it. There stands a personable young man who asks you just one question. Would you be interested in feeding your family better on less money per week?

The answer, of course, is yes. Who isn't interested in feeding the family better? If costs can be reduced, so much the better. But how, you ask, can this be done? The salesman may tell you that a food freezer and a food plan are the answer. In fact, his company will supply you with your perishable foods and freezer for less than you are now paying for perishables alone.

DON'T YOU BELIEVE IT! Savings of any kind are unlikely with a freezer when all the costs are considered, and under no conditions will you be able to save the purchase price of the freezer unless you are raising and freezing most of the foods that are going into it.

But, a food freezer plan can be a convenience. Some studies indicate that the family with a food freezer may eat better because of the variety of foods that are continuously available. And, the food plan cuts down on trips to the store which can be a bother.

Total cost

Before joining a food freezer plan, find out the total cost of the food freezer. It should cost about the same as comparable freezers purchased outside of the plan. No doubt you will have to pay the full retail price under a food plan, even though discounts are common elsewhere.

Unfortunately, some freezer plans are set up primarily to sell food freezers. Often a relatively unknown brand of freezer will be sold and the price of the freezer may be hundreds of dollars higher than it should be. A general rule to remember is this: freezers of the same type (upright or chest) and the same size, should cost about the same. A check of prices at your appliance store will verify this. Don't be unduly swayed by elaborate guarantees and service policies. They are no better than the company that makes them. Some food-freezer plans have had a rather short life.

Examine food list

The second part of the food-freezer plan is the food. Most likely you will be given a list of the amounts and variety of foods included in the



plan. The list, if the food is to last several months, will be impressive. Examine it carefully. Are the foods supplied those your family is used to eating? If not, there is the danger of ending up with a freezer half-full of food the family doesn't like. Find out if you are allowed to substitute foods. More important, find out how you can substitute them.

No doubt, if you are allowed to substitute foods, it will be on a dollar for dollar basis. It then becomes important to find out the price per package or per pound for all the foods supplied. You may want to know how many packages of asparagus you can substitute for eight packages of lima beans, or how many pounds of porterhouse steak you can get instead of the chuck roast the plan calls for.

Don't be put off. Find out how you can substitute before you sign up for the plan. It may be too late after the freezer and food arrive.

What should you do when the salesman calls? In the first place it might pay you to listen carefully to his story. There are some good frozen food plans in operation and one of them may fit into your family food plan quite well. But here are some things to look for in any food-freezer plan before you sign on the dotted line:

 Beware of the food plan that claims to save you a lot of money. Most studies show that little if any savings can be made by using a food-freezer.

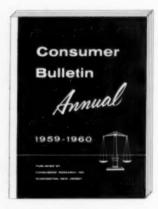
 Determine the true cost of the freezer. The freezer should cost about the same as comparable models bought outside of a plan.

 Check the prices of the food you will be getting. There should be some savings because you are buying several months' food at one time.

 Make sure that food offered in the plan fits your family's eating habits. If the food package isn't what you want, check on how substitution can be made and the prices or substitution rate of these foods.

Reprinted from Rhode Island Agriculture, Spring 1959,

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